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ABSTRACT

The extent to which Army enlistments represent a cross-section of the national male population was determined in this study of available Army enlistee data. Quantitative data from several existing sources are used, including the National Longitudinal Study (NLS) and the Armed Services Vocational Aptitude Battery. Focus of the analysis is on the demographic, socioeconomic, quality, and attitudinal measures of Army representation. Generally, the results show that Army enlistees are only somewhat different from their civilian counterparts. Where divergence does exist, the Army still maintains a balance in terms of national policy objectives. The findings include the following: there is underrepresentation of Army enlistees in the above-average and below-average categories of intelligence, blacks are overrepresented in the Army, individuals from lower socioeconomic strata are overrepresented in the Army while those from higher economic levels are underrepresented, Army enlistees are overrepresentative of the South and underrepresentative of the North, and those who enter the Army express greater changes of attitudes following high school graduation than their civilian peers. (This report includes fifty-two data tables.) (EM)

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Evaluation of Army Representation

by

Mark J. Eitelberg

HUMAN RESOURCES RESEARCH ORGANIZATION
300 North Washington Street • Alexandria, Virginia 22314

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Prepared for:

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A conceptual framework and functional definition of Army representation are developed from data gathered in an extensive review of related literature. Based on this information, a Convergence/Divergence Model is constructed--using the national policy objectives of military effectiveness, social equity, and political legitimacy as standard criteria of representation.

Quantitative data on Army representation are compiled from several

(continued)

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existing sources--including a longitudinal (2½ year) reference on the All-Volunteer experience. Standard and new statistical methods are employed to examine the demographic, socioeconomic, quality, and attitudinal measures of Army representation, according to guidelines established in the conceptual model. Representation indices are also constructed to evaluate four demographic areas and to compare information on civil-military attitudes and attitude changes. The results of the FY75 Armed Services Vocational Aptitude Battery (ASVAB) are evaluated, in order to determine whether the ASVAB sample is a valid measure of the age-specific population and the representational quality of military entrants.

An overview of volunteer accessions is presented, and the implications for further research concerning representational policy are discussed. A selected bibliography of related literature is included.

EVALUATION OF ARMY REPRESENTATION

SUMMARY

Historical Perspective

The notion of having a military establishment which at least approximates a cross-section of the male population is as old as the philosophical foundations of democracy. Although the modern argument in behalf of representation is often associated with criticisms of the All-Volunteer Force (AVF) concept, conscription has never insured civilian "representation" in the Army. Contemporary concerns over representational issues may be traced to the desegregation of the Armed Forces--and, later, public inquiry regarding the role of the Vietnam draftee, the unrepresentative quality of the Army's combat arms, the Vietnam casualty rates for minorities, the inequities of educational deferments, and the Civil Rights movement. The Final Report of the Gates Commission in 1970 first gave an official government endorsement to public concerns over Army representation. And, when it became apparent that the AVF could attract adequate numbers of qualified volunteers, the major focus of manpower policy shifted to the finer points of Army "representation."

Standards for Evaluation of Army Representation

Expressions of concern regarding the representational configuration of a strictly volunteer Army have concentrated on three general areas of national policy: *military effectiveness*, *social equity*, and *political legitimacy*. Military effectiveness--as an end or outcome of policy--has always been the foremost measure and determinant of major defense action. The association between military and domestic sociopolitical goals is a result of public interest in representational issues--and has created a level of evaluation which interrelates the *means* as well as the *ends* of defense manpower procurement policy decisions. The policy objectives of military effectiveness, social equity, and political legitimacy--though connected by the common thread of understanding concerning the requirements of Army representation--are not always complementary, and frequently conflict when used as standard criteria of representation.

Definitions of Army "representation" abound since (1) the possible range of characteristics for proportional measurement are virtually limitless, (2) there is justification for using a variety of groups as the national civilian standard for comparison, and (3) there is justification for using various aggregations and combinations of groups from the Army as the objects of proportional measurement. Regardless of the problems in delimiting categories and groups, it is possible to correlate the scope of representational analyses with the national policy guidelines of effectiveness, equity, and legitimacy--and derive a conceptual framework and functional definition of Army representation. One useful framework for analysis is a scale, along which the military is more or less overlapping with civilian society. By employing national policy objectives as boundary criteria, a *Convergence/Divergence Model* can be constructed. Within this model, a range or scale of *approximate representation* can likewise be developed as a standard for evaluating the proportional distribution of Army entrants.

Approach

Quantitative data were culled from the following sources: Bureau of the Census, Bureau of Labor Statistics, the November 1975 Army Sample Survey, the National Longitudinal Study (NLS), the Gilbert Youth Survey-USAREC tape merge, the Armed Services Vocational Aptitude Battery (ASVAB), the Manpower Research and Data Analysis Center (MARDAC) Survey Data Bank, and the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs (OASD[M&RA]).

A literature search was undertaken to define the problem and establish a criteria for evaluation. Standard statistical techniques were employed to examine the demographic, socioeconomic, and attitudinal measures of Army representation, according to the guidelines established in the conceptual model. The analysis of NLS data replicated the graphical format of a previous study. Indices were also constructed to evaluate four demographic areas and to combine attitudinal information.

Results

Generally, the results of this evaluation show that Army entrants are not exceptionally divergent from their civilian counterparts. In those cases where proportionate measures of Army membership do extend beyond the bounds of "approximate representation," there is still *a suitable balance of national policy objectives.* However, policy objectives are affected by the social and political environment--and are subject to change as public expressions and interpretations of national needs change. The choice of *how to compare* data also influences the level of perceived differences between the Army and civilian sectors of society. The inclusion of the officer corps in Army groups, for example, further reduces differences; comparisons of Army groups with the age-similar civilian labor force also decrease differences in many categories of proportional measurement.

- Race discrepancies are most noticeable. Individuals from the lower economic strata are overrepresented and individuals from the higher economic strata are underrepresented. The Army is overrepresentative of the South Atlantic region and underrepresentative of the North East. Comparisons of aptitude show underrepresentation in the above-average category, substantial overrepresentation in the average levels, and underrepresentation in the below-average categories. High school graduates are overrepresented in every age-category among newly enlisted accessions; however, college-trained accessions are underrepresented. There is a highly disproportionate percentage in the enlisted entry levels of personnel who are married. *If any pattern of enlistment can be identified* *from demographic trend data, it is generally toward increased representation in every category of measurement.*

- A comparison of the patterns of enlistment among the high school graduating class of 1972 reveals no great shifts in representation--but an apparent trend toward *increased* representation. NLS data also show *substantial differences* (in characteristics and attitudes) between age-similar entrants into the Army, based on their *time-of-entry* after high school graduation. Those who postpone entry into the Army at least eighteen months after graduation also appear more divergent (as a group) from the civilian standard than those who enter soon after graduation.

- Army tendencies toward isolation or alienation from society are not evident in attitudinal data. In fact, NLS Army entrants profess *greater acceptance* of community standards and political processes than their civilian peers. Army entrants also exhibit *comparatively high levels of participation* in community-related affairs and political activities. There is no evidence of any greater homogeneity of opinion or thought among NLS Army entrants than among their civilian peers; in fact, NLS data show an *even greater* dispersion of response for Army entrants than non-entrants.

- NLS Army entrants exhibit lower self-esteem during high school--but increase in self-esteem at *twice the rate* of non-entrants, to a level slightly higher than their civilian counterparts. During the senior year of high school, individuals who later enter the Army also profess a lower sense of control over their environment--yet increase in their sense of control at a *conspicuously greater rate* than non-entrants. Overall, NLS Army entrants display a greater orientation toward environmental (work, community, family) values than do their counterparts. There are indications also that orientation toward environmental values has decreased over time for the civilian standard, while Army entrants show a slight increase.

- There is support for the theory that the military entrant develops improved self-esteem and personal adjustment during early Army training, but at the same time develops negative opinions about the military job structure. There are also indications that a post-training re-orientation to work values and a high positive shift in job satisfaction occur as a function of time-in-service. These *attitude changes* are unrepresentative of non-entrants.

- The evaluation of ASVAB results supports the hypothesis that student participation in the high school testing program is largely affected by *predispositions toward the military*. ASVAB data are (1) disproportionately representative of individuals who are seriously considering the military as an alternate activity after graduation from high school, (2) very overrepresentative of participants from the South, and (3) underrepresentative of participants from the North East.

• From a representational perspective, ASVAB data show most conspicuous race differences and geographic differences within the racial classification on measures of mental aptitude. Further, based on future plans, the mean AFQT scores of military-directed individuals are *noticeably lower* than those who plan to enter college, and lower as a group than the overall population. However, the AFQT scores of those who plan to enter the military are also *noticeably higher* than the scores of those who plan to enter the civilian working force.

Implications

Future research efforts should: (1) further define *criteria* for measuring Army representation and develop a *consensus* of acceptable representational levels; (2) delineate the *interrelation of representational features*--and thereby create insights into the dynamic structure and resulting representational behavior of the system; (3) further evaluate the symptoms of *changes* in Army representation and correlate these changes to both *causes* and *consequences*; (4) study the relationship between the objectives of *military effectiveness* and levels of demographic, socioeconomic, and attitudinal representation; (5) further examine *attitudes* and *attitude changes* over time--as well as apparent differences in the perceptions of various Army cohorts; (6) *expand the areas* of proportional measurement to include a wider array of representational issues--such as quality of life factors, political inclinations, values and value systems, etc.; (7) continue to evaluate the possible *utility of the ASVAB data base* and resolve whether the ASVAB is and/or can be developed into a valid source of information on the total military-available population; and (8) continue, on a yearly basis, to evaluate *patterns of Army representation* and relate measures of representation to national policy objectives.

FOREWORD

Army representation is a relatively new area of research. Most extant information on the subject merely involves the presentation of enlistment statistics. Since most previous research is so limited in content, the present analysis necessarily involved the development of a conceptual framework and functional definition of Army representation. This report is, therefore, more than just another source of analytical information on the representational patterns of enlistment. It is an evaluation of the interrelationship of representational issues and an attempt to provide a structure for further research efforts in the field. As such, it is also a reference for future research on the patterns and policy objectives of Army representation.

This evaluation involved the construction and consolidation of an information base from existing sources. Previous literature on representational issues were examined in the development of a conceptual theory and framework for evaluation. Quantitative data came primarily from the Bureau of the Census, the November 1975 Army Sample Survey, the National Longitudinal Study (NLS), the Gilbert Youth Survey-USAREC tape merge, the Armed Services Vocational Aptitude Battery (ASVAB), the Bureau of Labor Statistics, and the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs (OASD [M&RA]).

The Policy and Program Evaluation Group of the Human Resources Research Organization (Eastern Division) is responsible for the design and execution of this research. Mark J. Eitelberg directed the project and served as principal research investigator. Mary Nell Bailey, with the assistance of Agnes C. Purcell, designed and executed the compilation of quantitative information from the NLS. Sharon E. Moore assembled and documented data for the demographic evaluation and assisted in the literature search. Ellyn S. Bloomfield constructed the NLS snowflake diagrams and the four comparative indices of representation. Ruth W. Benedict and Mary E. Morrissey diligently performed all secretarial services.

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1. THE CASE FOR ARMY REPRESENTATION

1.1 Historical Perspective

Over a century ago, French author and statesman Alexis de Tocqueville examined the political and social institutions in America and found that "in times of peace, the Army is always inferior to the country itself." This is necessarily true in democratic nations, Tocqueville observed, because of the absence of the "wealthiest, best-educated, and ablest men:"

> When a military spirit forsakes a people, the profession of arms immediately ceases to be held in honor and military men fall to the lowest rank of public servants; they are little esteemed and no longer understood.... [T]hen men of the lowest class enter the army [and]...a circle of cause and consequence develops: the best part of the nation shuns the military profession because that profession is not honored, and the profession is not honored because the best part of the nation has ceased to follow it (Tocqueville, 1966 edition, p. 266).

According to Tocqueville, it is the conscriptee who must therefore be able to "infuse the spirit of the community at large into the Army and retain it there." It is he who carries "the strengths or weaknesses of the manners of the nation," and does not "contract the wants, passions, or mode of [military] life." It is the private soldier, the citizen-soldier, who displays a "faithful reflection of the community," and helps to keep "the bounds of order" (*Ibid* ., p. 274).

Tocqueville's words are certainly familiar to followers of the All-Volunteer Force (AVF) debates. The fact that they were also written by a man who studied American democracy over one-hundred years ago, however, somehow adds a bit of ageless truth to the familiar arguments in behalf of Army representation.

The notion of having a military establishment which at least approximates a cross-section of the male population is, nevertheless, much older than the perceptions of nineteenth century commentators. It is an indirect outgrowth of the normative theory of citizen participation which developed from the traditional "citizen-soldier" concept of the Greek city-state and early Roman military system. In the words of Aristotle, "the citizens of a free state ought to consist of those only who bear arms." And, it was the American and French revolutions which helped to sustain this perspective of citizen involvement and representation in military service. Essentially, the principle has remained unscathed through time, and even served as an argument in behalf of maintaining post World War II peacetime conscription (cf. Gerhardt, 1971).

The philosophical basis for the use of conscription, however, should not be confused with issues of representation. The United States did not actually institute conscription during peacetime, and has for most of the past two-hundred years depended on the voluntary motivations of young men. Only during major hostilities has the draft actually been instituted--and even during periods of conscription, an array of deferments, disqualifications, quotas, and discriminatory practices has limited the representative nature of the armed forces. As Coffey and Reeg (1976) observe, the closest the military has ever come to being "representative" was during the closing months of World War II--when a vast majority of the younger-age classes were inducted. But even during that period of major manpower demand, every one man in four (19-25 years old) was either disqualified or excused (Coffey and Reeg, 1976). Statistically, the draft has never insured anything but geographical representation, which was a direct result of Selective Service district quotas.

When Selective Service legislation was extended in 1948, a military analyst for the N.Y. Times remarked that "fundamentally, it [conscription] represents--though without too much cogent reasoning about the means--America's desire for security"(Gerhardt,1971, p.122). Security in time of war and a means for mustering a mass armed force have always been the major reasons for conscription. The direct association between conscription and representation in the Army was not made until the start of public discussions concerning the practicality of an All-Volunteer Force.

During the 1940's, Black quotas and desegregation of the Armed Forces became major questions of military representation. The contemporary issue of Army representation did not actually develop until the late 1960's. Concern over the role of the Vietnam draftee, the unrepresentative quality of the Army's combat arms along with the Vietnam casualty rates for Blacks, the inequities of educational deferments, and the Civil Rights movement all contributed to an understanding that the burden of military service should be equally distributed across all levels of the community.

Parallel to this concern for equity, there developed during the AVF discussions a middle-class fear that a *strictly* Volunteer Army would eventually become "an Army of disciplined phalanxes of 40-year-old Black men with shaved heads marching to take over the government in Washington" (Bunting, 1975, p. 158). The Black militism and civil disorders of the 1960's created for some a vision of racial wars and organized violence in the streets of America. In addition, it was feared that the Army would become a haven for the disadvantaged and mentally incompetent unemployables of society--"a Volunteer Army of Chesty Pullers, Pachua alumni, Hell's Angels, psycopaths, inbred albino mountain boys and 38-year-old privates dividing their time between the bayonet range and the whorehouse" (Bunting, 1975, p. 84).

The first negative reactions to the introduction of the plan for zero-draft calls concerned national security and a means for maintaining a mass armed force--the same reasons for instituting conscription. There were some references to the issues of representation in early discussions, but it was the Gates Commission Final Report (The President's Commission on an All-Volunteer Armed Force, 1970) and its treatment of representational questions, as Coffey and Reeg (1976) observe, which first gave an official government endorsement to the concern. The Gates Commission considered several contemporary "objections" to the All Volunteer Force in its report and evaluated issues which were directly related to questions of representation: for example, the development of a separate military ethos, problems regarding the overrepresentation of racial minorities and lowest socioeconomic classes, money-motivated mercenaries, and the decline of military effectiveness.

Through the transitionary period, the major area of concern among most policy-makers was quantity and quality. Issues of representation were secondary, since, in order to be effective, the AVF would first have to draw *adequate numbers* of qualified volunteers. When it became apparent that manpower requirements could be achieved under volunteer conditions, the major focus of attention shifted to the finer points of Army "representation."

1.2. The Case for Army Representation Reexamined

Expressions of concern regarding the representational configuration of a strictly volunteer Army have focused on three general areas of National policy: military effectiveness, social equity, and political legitimacy. Military effectiveness--as an *end* or *outcome* of policy--has always been the foremost measure and determinant of major defense action. The concepts of social equity and political legitimacy are likewise firmly rooted in the philosophical foundations of democratic institutions. However, these three policy areas are each definable by a somewhat different set of criteria--and have only in recent years become uniquely interrelated as defense manpower policy issues through the expressions of concern over Army representation.

While the end of the draft and advent of the All-Volunteer Force are not in themselves responsible for redirecting policy evaluations, these events did for the first time in recent history establish this linkage between military and domestic sociopolitical goals. The issues of military effectiveness became, consequently, issues connected by a common bond of concern to the basic principles of democratic organizations. This new concern over the representational character of voluntary enlistments thereby established a strong precedent for a *new level* of evaluation regarding the *means* as well as the *outcomes* of defense manpower procurement policy decisions.

Even though these three areas are treated separately in this discussion, they should be considered as interrelated measures of manpower policy objectives--connected by the common thread of understanding concerning the requirements of Army representation. In addition to being non-exclusive, it should be observed that the various elements of these three areas of broad policy objectives are not always complementary or mutually advantageous. It is quite possible that the achievement of one objective (within a broad policy area) may not be necessary--or, even favorable--for the achievement of another.

Military Effectiveness

Military effectiveness, from the standpoint of defense strategists, has always been the major issue in manpower policy and programs. Such is the case with representational policy under the All-Volunteer Force. Effectiveness, however, though intertwined with the issues of equity and legitimacy, is directly related to representation only insofar as representation provides the best and most capable military force. That is, the representational configuration of Army entrants does not *in itself* determine whether the military can accomplish its mission--unless it is indirectly influenced by the negative manifestations of equity and legitimacy. For example, the military could quite conceivably accomplish its intended purpose even though it was disproportionately represented with above-average intelligence, well-educated, highly-motivated, and economically successful New Englanders--unless some element of this *composition* produced an outcome which did not enhance mission effectiveness.

Probably the best example of the manner in which representativeness would negatively influence effectiveness is, ironically, the concept of perfect representation. Perfect representation implies that the best elements as well as the worst elements of society be present in the ranks of the Army. This would mean, in effect, that restrictive standards on mental aptitude, moral background, and physical attributes be rescinded entirely to allow perfect proportional representation. It would mean that the Army actively seek not the most well-educated group of enlistees, but the most representative of society--including non-GED dropouts and functional illiterates. Obviously, there is as much truth in claiming that the Army rank-and-file represent certain characteristics of society (for the purposes of effectiveness) as there is in saying the Supreme Court should represent mediocrity (which, in fact, one U.S. Senator did claim during the confirmation hearings of a 1970 nominee to the Supreme Court). This is an extreme example of an unlikely occurrence, but the point is clear: the military effectiveness of the Army is influenced by its composition to the extent that its composition may be related to Army *needs*.

Most discussions of the relationship between representation and Army needs concentrate on the measure of *quality*. Quality, in itself, is a somewhat ambiguous reference used to describe certain individual attributes--and frequently subject to various interpretations. The most common definition of quality is the one used in the Defense Manpower Quality Requirements Report (U.S. Dept. of Defense, 1974; hereafter referred to as the Nunn Report). In this report to the Senate Armed Services Committee, the basic elements of quality measurement are defined as including: (1) Physical Condition (determined by medical examination); (2) Moral Background (determined by enlistee statements and/or checks on misdemeanors, felonies, etc.); (3) Trainability (determined by aptitude tests); and (4) Motivation/Discipline (determined by high school diploma, interviews, and training attrition).

The understanding of quality *objectives* is the comprehension that quality representation does not necessarily equal *proportional* representation. This is especially apparent from the definition of quality offered by the Opinion Research Corporation (ORC, 1974) in Attitudes and Motivations Toward Enlistment in the U.S. Army. ORC here defines "quality" to include individuals who meet certain criteria: (1) high school graduate or soon to be; (2) academic standing at the top 2/3 of the class; (3) has interests and attitudes useful to the Army and suitable for technical and/or combat assignment; (4) has desirable moral standards and values. And, interestingly, one-fourth of all non-college men (hardly a proportional configuration) were determined to meet these criteria by ORC (*Ibid*, p. iii).

Quality objectives in recruitment, because of the difficulty in constructing all-inclusive individual profiles and predictors of performance, are most frequently defined in practical terms as high school graduation and/or mental group categories. This is mainly the case since several studies have over the years established a strong correlation between education/aptitude and military performance. For example, the recent Quality Soldier Study by the U.S. Army Training and Doctrine Command (1975) highlighted the overall superior performance of the more intelligent (Mental Category I-III), better educated (high school graduate) individuals in the three major areas of leadership, discipline, and job proficiency. A report prepared for the Army and issued in April 1974 also observed that the probability of an Army volunteer with 8 years of education or less being found unsuitable during the first 18 months of service is 48 percent, while the probability for a high school graduate is only 8 percent (in U.S. General Accounting Office, 1976a). And, as the Nunn Report (1974) points out: "The more years of education, the lower the unsuitability discharge and other disciplinary action rates. For these reasons, the Army, as well as the other Services, prefers to enlist a high proportion of high school graduates" (p.7). There are many similar (though less comprehensive) treatments of this subject, and all seem to indicate the primary importance of some level of quality as a determinant of individual success in the military.

When the Army does not achieve the *minimum* quality level of civilian society--i.e., proportional representation of the several measures of quality in the civilian society--effectiveness becomes an issue of representation. For example, a major argument during the All-Volunteer Force debates was related to the understanding that the traditional representation of college graduates and individuals strongly motivated to continue their education beyond high school (sometimes characterized as "reluctant draftees") would be lost through the volunteer format. Thus, the minimum proportion of individuals who received some form of higher educational training would, under this argument, presumably not be achieved.

When the issue of effectiveness is again related the question of *military need*, however, there is substantial disagreement that even the minimum standard of proportional "quality" representation is either necessary or desirable. As the Defense Manpower Commission (1976) observes, "it can be shown that, in certain occupational areas, some Category IV personnel perform as well or better than a number of Category I-III personnel" (p. 158). In fact, as Coffey et. al. (1975) point out, a recent evaluation of tank crew members by the U.S. Army Training and Doctrine Command actually shows that the best educated and most intelligent students were the worst gunners. And, as Coffey et. al. (1975) further note, research has been generally unsuccessful in equating the passing of written examinations to future military performance.

Binkin and Johnston (U.S. Congress, Senate, 1973), in their discussion of manpower policy alternatives (i.e., the "bonus"), also observe that it is quite possible to "buy" more quality than is necessary--suggesting, in effect, that there are limitations on the relationship between quality and effectiveness (cf. also the conclusions on quality manpower costs and their relation to supply factors in the Nunn Report, 1974). Melvin Laird took a somewhat similar position in his

Report to the President: Progress in Ending the Draft and Achieving the All-Volunteer Force (U.S. Department of Defense, OSD,1972): "An organization composed of bright people unchallenged by their jobs would be as much of a quality mismatch as an organization made up of people who lack the ability to perform their jobs..." (p. 23). The goal, according to Laird, "should be to obtain people who can perform the required job in a completely adequate fashion"(*Ibid.*, p. 27); "people whose learning capacities match the requirements of military jobs" (*Ibid.*, p. 23).

Regardless of the relationship between representation and effectiveness, there does appear to be a strong consensus of opinion from many sources that there is no cause for concern over representational issues--*as long as* the Services can choose candidates from the available supply of people in the "marketplace" on the sole basis of *qualification* (cf. Stevens, 1975). Qualified volunteers make good soldiers, many defense spokesmen claim, because they *are* qualified (Blivin, 1975)--and, requirements which seek to impose representational rather than qualification factors limit the flexibility of the Armed Forces to efficiently use their personnel, and thereby pay a high price in terms of effectiveness (Coffey and Reeg, 1976).

Determining the relationship between *quality* representation and military effectiveness appears easy when compared with determinations of *socioeconomic* composition. As Coffey et. al. (1975) point out, there are numerous unquantifiable variables and intangibles, internal and external to the Armed Forces, which complicate any assessment of the manner (and degree) in which the socioeconomic composition of a force affects performance. Some sample questions of the possible effects of social compositon are raised by Grundy (1976) in his study of racial and ethnic relations: for example, to what extent does racial and ethnic diversity affect unity and morale; does inter-group diversity diminish or improve field effectiveness; and,how does social composition affect military-civilian relationships?

The Defense Manpower Commission (1976) did attempt to determine through a survey of military commanders whether (in the perceptions of the commanders) *changes* in the socioeconomic composition of units may have affected the ability of units to perform their missions. The Commission found no evidence that socioeconomic composition affects the performance of an armed force to fulfill its mission. Rather, it reports that performance is apparently more influenced by "dynamic factors" such as leadership, training, morale and discipline, and materiel readiness than by socioeconomic composition (*Ibid.*, pp. 156-157).

Nevertheless, it is possible for the overall effectiveness of an armed force to be influenced, indirectly, by the representational composition of its membership. One of the best examples of social composition indirectly affecting mission accomplishment is in the area of attitudes and attitude changes--since social origins are often related to the development of attitudes. The issue of representational attitudes is also related in a major way to the objectives of political legitimacy. In fact, many of the perceived relationships between social composition and military effectiveness are significant issues of equity and legitimacy as well. The following discussion of social equity and political legitimacy therefore encompasses some additional concerns regarding the effectiveness objectives of manpower policy and programs.

Social Equity

The case for Army representation which is based on issues of social equity usually revolves around the theme that the burdens of national defense (and the possible sacrifice of life) should be borne equally by all qualified and able members of society. Social equity issues of representation, as previously observed, first received attention during the desegregation of the Armed Forces after World War II. Equity was again the subject of attention during the Vietnam War, when casualty rates showed a disproportionate rate of combat-related deaths among Blacks--and, when the several deferments under Selective Service regulations were consequently exposed to increased public scrutiny.

For some, the imposition of universal military training or an improved system of conscription were possible solutions to the inequalities of the military procurement system. For those who deplored the revocation of obligatory service, the All-Volunteer Force was seen as just another form of class privilege--a way to further "insulate" middle and upper-class Americans from the horrors of war (McWethy et. al., 1972). During the past few years, the argument for social equity has been transformed from one of concern over the general application of class sanctions to the more topical questions of equal opportunity and minority group "imbalance."

The primary debate on issues of equity continues to focus on minority representation--and, more specifically, Black representation, since Blacks as a group are also disproportionately representative of the poor. In fact, Coffey and Reeg (1976) observe that the proportion (i.e., *over*representation) of Blacks in the enlisted ranks is probably *the* major issue among all voiced concerns of representation. The only historical precedent for the concern regarding overrepresentation of Blacks in the Army involves perceptions of the strengths and weaknesses of Black soldiers. For example, the imposition of racial quotas was no doubt an effect of the predominant White attitudes of the time--attitudes which frequently placed severe limitations on the military effectiveness of Blacks as a group. As late as 1955, studies were being conducted on The Utilization of Negro Manpower in the Army (Milton, ed., 1955)--generated, in part, by public apprehension in entrusting the responsibility of national defense to 10 percent of the population: "While Negroes have served in the Armed Forces since the Revolutionary War, their utilization has varied and their value has been the subject of much debate"(*Ibid.*, p. 1).

While concerns about the possible *over*representation of Blacks in the military resulted in racial quotas, it is interesting to note that (aside from the issues of desegregation) the *under*representation of racial minorities in the military had never really been a major topic of discussion until recently. Recent discussions on the underrepresentation of minorities in occupational specialties, career fields, and the officer corps, however, do not even approach the magnitude of debate regarding the overrepresentation of Black enlisted men.

As Stephen E. Ambrose observes in "Blacks in the Army in Two World Wars" (in Ambrose and Barber, eds., 1972), except in times of severe depression, the Army has historically been unable to enlist enough men to maintain its authorized strength--yet, it never had the slightest difficulty in filling its assigned quota of Blacks. Even though there were far more potential Black recruits during the periods of Army segregation, Black strength was always lower than the percentage of Blacks in the general population would justify, as Ambrose notes. And, ironically, Blacks were even more underrepresented in the decade of the 50's and 60's than they were overrepresented in the 1970's (Coffey and Reeg, 1976).

This is not to suggest that concerns regarding Black overrepresentation are necessarily grounded in some underlying racial prejudice--because the issue of *equity* did actually grow from the understanding of an equally distributed burden of defense among the citizenry (and, specifically, the disproportionate number of Black Vietnam casualties). However, contiguous with the equity argument was the Middle American fear that a disproportionately Black Army would lead to increased racial tensions and polarization, as well as an unreliable and less effective military force. (Interestingly enough, as Dalfiume (1969) notes, "efficiency" was one of the most frequently cited reasons for military segregation.) The racial unrest of the late 1960's can be said to have contributed to these fears--fears which even viewed the training of Black servicemen as a way of preparing a potential enemy for war in the streets of urban America (cf. Blivin, 1975).

In addition to public apprehensions concerning the overall quality of a disproportionately Black Army was the contention by some observers that a "tipping effect" would self-perpetuate the Black imbalance: i.e., that a point would be reached at which the proportion of Blacks in a particular unit would be high enough to gradually drive away large numbers of Whites from that service or branch (possibly a result of perceptions by Whites that Black units have less status) (cf. Janowitz, 1975b). Further, it was believed that combat units which were overweighted with racial minorities would have limited credibility in the world arena, would not effectively project the desired goals of U.S. foreign policy, and would be detrimental to the image of American society abroad (cf. Janowitz, 1975a).

Many of these observations regarding the potential dangers of Black overrepresentation, though not in themselves indicative of any attitudes favoring racial repression, are based largely on the assumption of the inherent racism of the American people and the rest of the world (cf., especially, Dellums in Janowitz and Dellums, 1975). The question of Black overrepresentation--developing initially from perceptions of inequities in the draft and the allocation of military manpower--nevertheless evolved into a two-fold issue: effectiveness, as well as equity. The point is that distinctions should be made between these issues as they pertain to arguments in behalf of proportional representation.

The more *general argument of equity*--i.e., overrepresentation of the lower socioeconomic strata and otherwise deprived members of society--is also very much related to effectiveness issues. As a *means* of forming the All-Volunteer Force--as opposed to the *ends* of achieving the most efficient and capable military force--this issue is the *critical point* of all discussions of equity.

Essentially, this argument is a restatement of a popular phrase during the Civil War: "rich men's money, poor men's blood" (Boorstin, 1975). The claim is that the volunteer system of manpower procurement will result in the enlistment of disproportionate numbers of Blacks, poor Appalachian Whites, and other working-class groups (particularly in combat units), since it is the less skilled and less employable members of society who have the fewest civilian alternatives open to them (cf., for example, Marmion, 1971; Clark, 1969; the President's Commission on an All-Volunteer Armed Force, 1970; Miller, ed., 1968; Tax, ed., 1967; "A Volunteer Army: Pro and Con," 1969; Congressional Digest, 1971).

The equity argument is based on the notion that military service is: (1) a sacrifice of time and effort which has many negative aspects and few rewards; (2) mainly oriented toward combat preparedness, and, therefore, involves a high risk for potential loss of life; and (3) is less desirable than most alternative activities or occupations available to young men and women. If it were not for this understanding of military service, the disproportionate enlistment of individuals from the lower social strata of society would not be an issue of equity. If military Service was seen as a highly desirable alternative activity, and the Services were enlisting disproportionately low numbers of minorities, an argument in behalf of equal opportunity would no doubt also be promoted (as is presently the case with regard to the officer corps). Still, the basic argument of shared responsibility draws its support from the premise that military enlistment is an exercise of citizenship and not on an equal plane with civilian job-market alternatives.

In viewing military service in this manner, proponents of the equity argument see the Volunteer Army as most likely attracting those individuals who are most victimized by the vagaries of the economy (cf. Marmion, 1972). Consequently, it is the less-skilled, less-employable members of society--with fewer civilian alternatives available to them--who are "shunted off" into the military. The military Services, and Army in particular, are thereby seen as becoming a "refuge" for the poor and disaffected members of society. In effect, it is argued that "economic conscription" results when these individuals, who are otherwise unable to find employment, enlist in the Army out of sheer necessity for economic survival. This argument for equity becomes especially strong when related to the notion of personal sacrifice--i.e., that depressed minorities must risk a great deal (even their lives in time of war) before the opportunities of better economic status are made available.

It is interesting, as Segal and Daina (1975) observe, that opponents of the *draft* also argued that the system (and its inequities) placed the burdens of war disproportionately on the disadvantaged strata of American society. Further, it should be noted that a large fraction of the poor have historically been rejected on the basis of mental, physical, and moral standards. In fact, as Milton Friedman observes (in O'Sullivan and Meckler, eds., 1969), the draft disproportionately affected the upper-lower and lower-middle classes--and, that the fraction of high school graduates under the draft was "vastly higher" than either college entrants or high school dropouts (*Ibid.*, p. 255).

There is, nevertheless, a strong basis of support for the concept of the Army as a *possible* refuge for the disadvantaged and minorities. As Richard M. Dalfiume observes in Desegregation of the U.S. Armed Forces: Fighting on Two Fronts 1939-1953 (1969), since it has always been assumed that citizens have the obligation to participate in the Armed Forces--and, restrictions on the opportunities of groups to fulfill this obligation have served as reasons for denying groups their full rights of citizenship (as was the case, for example, in the Dred Scott opinion of Chief Justice Taney)--Blacks and other minorities have sought military participation in the hope of effecting increased civil rights and entrance into the larger society. In addition to the desire for "demonstrating" citizenship, many minorities have simply sought military life as the best alternative in a restricted range of economic opportunities (Ambrose, 1972). In fact, as Charles C. Moskos (1970; and in Little, ed., 1969), notes, it is actually possible for those initially less privileged to compete more realistically for advantages within the military system than in most civilian education, commercial and industrial organizations. Studies have also shown that minorities with less than a high school education earn more in the military than in the civilian labor force.

The notion of the military as a place of opportunity, equal acceptance and involvement--regardless of prior social advantage or preexisting handicaps--has, over the years, also fostered the concept of military service as a channel for *social mobility*. The Services have accepted and even promoted their role as provider for the disadvantaged (Department of Defense, OSD, 1972), especially as it pertains to educational opportunities and skill training. Because the Army continues to be a leading avenue of career opportunity for the disadvantaged and minorities, it is reasonable to expect that racial and ethnic groups will exhibit a high proportionate propensity for Army enlistment.

The Department of Defense has repeatedly stated that it is not concerned with the racial breakdown of the Armed Forces, and continues to emphasize the principle of primacy of the individual (Goldich, 1976; also Lt. General H.G. Moore in U.S. Congress, Senate Committee on Appropriations, 1975, p. 667). Equal opportunity was also a theme in the Final Report of the Defense Manpower Commission (1976). Exhorting the Services to recruit and assign personnel without regard for representational factors, the Commission supported a "free flow" policy of enlistment--dependent on the market conditions of supply and demand (*Ibid.*, p. 172, 411). From a representational point of view, it can be seen that fluctuations of supply and demand will affect the proportion of minority group entrants. And, circumstances (e.g., the threat of conflict, changes in national posture, or reduced unemployment) which make enlistment less attractive to many will probably not equally affect the demand curve of those individuals who have fewer alternatives for social mobility. Under these circumstances the equity argument becomes most persuasive. The real policy dilemma, however, is reconciling the fact that the Services do provide a channel of social mobility and opportunity for the disadvantaged with the objectives of representation.

Political Legitimacy

Students of military sociology claim that civilian control over the military establishment is most effective when the military society is an integral part of the *whole social fabric*--that is, when individuals who enter and leave the military represent a wide variety of social backgrounds and attitudes. Morris Janowitz, probably the most vocal proponent of representational "legitimacy," stressed this point in his testimony before the Defense Manpower Commission: "A representative military is the basis of civilian control and the legitimacy of the military. In a democratic society, a representative military is essential to military effectiveness" (Testimony before the Defense Manpower Commission, 17 July 1975, in Coffey et. al, 1975, p. 10.).

Basically, the argument for political legitimacy draws its strength from the "citizen-soldier" concept and the democratic notion of full-citizen participation in the military affairs of the community. The draft did provide an automatic process of democratization (theoretically color-blind to race, economic or social status) through which multitudes of citizens would serve short periods of time in military service and then return to their civilian occupations. The draft thereby functioned as a "revolving door" between the military and civilian sectors of society, providing at least some assurance of the convergence between civilian and military values. The All-Volunteer Force--in surrendering the control of *selective* service to the inconstancy of exogenous conditions--was consequently seen as a risk which threatened, among other things , the complete loss of civilian control over military affairs (cf. Clark, 1969; Ervin in Congressional Digest, 1971).

The concern for political legitimacy also rests on the understanding that the duties of citizenship *require* some form of military participation. Disposal of the right to defend the nation by the citizenry is seen in this context as a relinquishment of liberty. Further, the shift to voluntary enlistment actually "maligns the character" of the American citizen by saying to him: "Give anything but yourself" (cf. Gerhardt, 1971, p. 112). Under the system of voluntary military service, patriotism is seen to gradually take on a new meaning for those who choose not to serve--with the inevitable result of widespread public apathy and acquiescence regarding military matters.

In addition to the perceived effects of voluntary service on the "national character" or "patriotic fiber" of America are the sociopolitical consequences of military representation. In fact, the case for political legitimacy is based on the assumption that certain patterns of voluntary enlistment attenuate traditional linkages of civilian control to the point where the military becomes its own master. For example, it is often observed that those individuals who are predisposed toward the ideals of pacifism are totally unrepresented. The wellborn and the privileged, the rich and the educated--with higher paying, less dangerous career alternatives elsewhere--are also presumed lost to the military service.

As Janowitz (1973) observes in "The Social Demography of the All-Volunteer Armed Force," demographic characteristics of military membership play an important role in the "internal viability" of the armed forces in civil-military relations. And, if the hypothesis is made that the military will continue to fill its ranks with those who are unrepresentatively positive toward the armed forces, there is cause for concern. Perhaps the major influencing factor in drawing this hypothesis is the recognition that (1) the volunteer format can be depended on to provide a preponderance of individuals who would have enlisted even with a draft (ie., the *self-recruitment* or *self-selection* by those who possess traditional military perspectives); (2) the impact of *professional socialization* will strengthen the homogeneity of military entrants, and operate to mold a "military mind" or characteristic ethos of militarism; and (3) *negative selection* (or the process by which those who do no "fit in" are not promoted or "select" themselves out) will act to further eliminate those who do not conform to the prevailing mode of behavior and thought (cf. Janowitz, 1975a, 1973).

The disproportionate representation of several specific demographic measures are considered to be especially adverse to the achievement of civil-military convergence. These are: (1) disproportionate *regional* representation--especially from the hinterlands of the *South* and *Southwest*, where (a) there is a high concentration of military bases, (b) military men make social contacts, evidence a high proportion of marriages to girls who live near military installations, and most frequently choose to retire, and (c) there is a presumably higher degree of military orientation (Janowitz, 1973; Blivin, 1975; Coffey and Reeg, 1976); (2) disproportionately low representation of *college graduates* or those who have some college training--because of the perceived effect of higher education on attitudes and perceptions; (3) the disproportionately high representation of *military offspring*--since there are usually homogeneous perceptions and social isolation present in military families (Janowitz, 1973, 1975); (4) the disproportionate representation of the lower *socioeconomic* strata, the *underskilled*, and the *under-trained*--since those who feel inadequate to compete in the civilian economy will also tend to feel alienated and/or isolated from the community they are supposed to defend (Marmion, 1971); and (5) the disproportionate representation of traditionalistic, conventional, conservative, and provincial *attitudes*--since it is the tough-minded politico-military perspectives and strong conservative or right-wing political ideologies which tend to emphasize military objectives and further isolate the military establishment from the mainstream of society (cf. Janowitz 1973, 1975).

These demographic and attitude factors, when combined, operate to reduce the indirect mechanisms of civilian control. When convergence is removed through the lack of proportionate representation, and the several processes of homogenization further constrict diversity of attitudes, the military will display increased emphasis on its own organizational boundaries and its own distinctive values. And, as it turns its sights inward, proponents of legitimacy claim the military will necessarily gravitate toward its industrial counterpart in civilian society and seek bigger and more elaborate budgets to perpetuate itself. Eventually, the military establishment will emerge with its own professional concerns, ideology, powerful pressure groups, and politics (cf. Clark, 1969).

These developments are in themselves contrary to the purposes of democracy. However, the emergence of a military-industrial mammoth would only increase the likely occurrence of the most frequently mentioned concern of political legitimacy--that is, the entrance of the military into an unjust war. The assumption that the loss of civilian control over the military will necessarily increase the likelihood of war is also based on perceptions regarding the "suicidalness of militarism" (Ekirch, 1956)--or the inherent distrust by civilian society of the unchained forces of a military monolith.

The lack of community representation in the military, especially among college students and individuals from the middle and upper-middle class strata of society (from whom the broad base of anti-war sentiment is frequently seen to arise) will consequently assist in removing the military establishment from public scrutiny (Ervin in Congressional Digest, 1971). By eliminating the irritant or inhibition of drafting young men who question the justification for entrance into war--and its concurrent effect on the attitudes and behavior of parents (often referred to as the "lightning rod" effect of conscription)--many proponents of conscription also reason that it will eventually become easier for the military to engage in adventurism.

The corollary to the underrepresentation of individuals who might be considered to provide an irritant is the overrepresentation of those who do not. During the All-Volunteer Force debates, for example, there were many commentators and observers of military affairs who claimed that the system of voluntary enlistment would attract mercenaries, or those who took great pride in being professional (as opposed to "volunteer") combatants. There was also public apprehension that the Army would be primarily composed of "a band of professional killers" with little in common with the rest of civilian society (McWethy et. al., 1972)--an Army of "hired guns," which spent its time "meditating on blood"--men with little stake in civilian society, working at war-making as civilians work at their jobs.

For some, therefore, the All-Volunteer Force was a duplication of the French Foreign Legion, taking the country headlong down the road of endless military adventures. In the most extreme scenario, this band of "hired guns" (possessing a "coup mentality" and no great overriding patriotism or loyalty) would be manipulated in a conspiracy to overthrow the government. The more subtle and realistic danger, however, as Janowitz (1975a) and other sociologists observe, is not the potential for a *coup d'etat*--but the increased likelihood that the military will continue to operate as a powerful pressure group with a distinctive and relatively unified outlook and ideology. Janowitz (1975) writes: "A military establishment with selective linkages to civilian society, with a strong element of social unrepresentativeness, and with a presumed 'ideological' cast, is likely to be the source of political conflict and dissensus with segments of civilian society" (p. 448). It is, as Charles C. Moskos (1970) observes, this movement toward socio-political divergence which creates--not the specter of overt *military* control of national policy--but the more subtle danger of a segmented military establishment which allows for greater international irresponsibility by its *civilian* leaders.

It is interesting to note that, from discussions with data analysts at the Roper Public Opinion Center, surveys of public opinion concerning defense issues over the past few years show two trends: (1) public confidence in the military has dropped in the last decade; and (2) the military (along with the Supreme Court) is felt to be out of touch with the people it is supposed to serve. These findings would tend to support the case for representative convergence of military and civilian perspectives. However, as Blivin (1975) notes, the vitality of a military force *also* depends on the delicate balance between a special sense of inner-group loyalty and participation in the larger society.

One writer recently provided a personal assessment of representation in the Volunteer Army:

> Certain generalizations can be made. The new Army's Willie and Joe tend to come from Louisiana instead of the south Bronx. They are somewhat younger, on the average. And yet, adding in your poor Black from Shreveport, they remain your standard *Battle Cry* collection of the dispossessed, the curious, the naughty, the gung-ho, the indigent, the unemployable, the romantic, the shiftless. Really the only members not now present for duty are the Northeastern liberal--say, the English major from NYU--and his bemused friend from Greenwich or Grosse Point who "did not want the responsibility of a commission," who read Nietzsche at lunch and who said sentences to his sergeant that began with the words "But surely...." (Bunting, 1975, p. 164).

Regardless of the humor and use of stereotypes to describe Army enlistees, this evaluation of representation is essentially correct. Certain individuals may be expected to be absent from the enlisted ranks--while a measure of diversification will always be present. Yet, there are obviously limits to the possible representativeness of the military. Perhaps the objectives of political legitimacy should be directed at keeping the military, and especially the officer corps (cf. Friedman in O'Sullivan, 1969; Janowitz, 1975; Blivin, 1975), from becoming *highly* unrepresentative.

1.3 Representation Defined

In March of 1975, Secretary of the Army Howard (Bo) Callaway appeared before the Senate Appropriations Committee and broadly defined Army representation:

> What we seek, and need, are quality soldiers--men and women who are representative of the overall population. Ideally, we would like to have a least one from every rural delivery route, and one from every small town. Our obligation to the American people is to strive to field an Army which is both representative of them and acceptable to them (U.S. Congress, Senate Committee on Appropriations, 1975, p. 13).

In reply to a question from Senator John Pastore, Callaway further explained Army representational objectives:

> ...[I] felt the United States should have an army broadly representative of all Americans which, to the extent possible, would contain roughly the same percentages of people of all ethnic groups, and the same percentage at various income levels and educational levels. That has been our goal. (*Ibid.*, p. 105).

Lt. General Harold G. Moore, Army Deputy Chief of Staff for Personnel (DCSPER), stressed the importance of attaining an equitable distribution of responsibility through representation in his remarks before the Senate Appropriations Committee:

> We believe that these quality personnel should be representative of all regional, economic, and racial segments of society, and that no individual group should disproportionately bear the burden of national defense. It is our intent to obtain accessions that reflect a geographical cross-section of our society as well as providing an opportunity for all qualified applicants to compete for Army career opportunities. (*Ibid.*,p. 619).

Donald G. Brotzman, Assistant Secretary of the Army (Manpower and Reserve Affairs), testified before the Defense Manpower Commission in July of 1975 and also expressed a reaffirmation of the policy objective for achieving proportional representation in the Army:

> Equally important as having a quality and professional Army is having an Army which is generally representative of the American people. I mean representative in the racial, geographic, and socioeconomic sense (Coffey and Reeg, 1976, p. 13).

These recent statements of Army recruitment goals illustrate the point that "representation" is still an important subject of thought among Army hierarchy. A number of similar references to representational issues may be found in official DoD publications, congressional committee documents, research reports, and general literature in such fields as sociology, psychology, and political science. A comprehensive bibliography has been included in this report as a guide for those who might wish to further explore the historical development of representational issues.

Various attempts have been made in recent years to draw the philosophical and practical aspects of democratic theory together and derive a general blueprint for Army representation. Nevertheless, most definitions of representation are no more explicit than the vague pronouncements quoted above. As the Defense Manpower Commission notes in its Final Report (1976), there is still a distinct lack of consistency in Service-stated objectives, as well as policymaker perceptions of representation.

Generally, "representation" may be defined as that proportion of each group within the national population (Defense Manpower Commission, 1976). The "groups" or factors included in comparisons of proportions--i.e., those most commonly cited in public discussions of representational policy--are minority groups (specifically Blacks), levels of educational attainment and mental aptitude (even though it has been Army policy to recruit *as many* high school graduates and higher mental groups as possible), geographical distribution (usually by region and rural/urban classification), socioeconomic status (including, for example, parents' income or family income, parents' occupation, parents' education, marital status), and occasionally male-female ratios.

The rationale for limiting "representation" to these groups--as well as the method of using the "national population" as a standard for comparison--is subject to dispute. A suitable, and perhaps even better, standard for comparison might be the total military age-eligible population or some combination of other alternatives: for example, only qualified and able military-age youth, those age-eligibles in college or technical school or, those age-eligibles who choose to join the civilian labor force (or some specific occupational skill areas of the labor force). It has even been suggested that standards for comparison be drawn from the *conscripted force* of earlier years--itself not a *truly* representative configuration of the American people (Segal and Daina, 1975; Cooper, 1975; Coffey et. al., 1975). Another case is often made for using FY1964 as a "base" year or benchmark for comparison, since it was both pre-AVF and pre-Vietnam build-up (cf. Coffey et. al., 1975; Brehm, April, 1975; Suffa, 1975; also, DoD-originated studies).

Similarly, there is a wide range of possible comparison groupings within the military--anything from the entire Department of Defense on down to the smallest identifiable unit. As Coffey and Reeg (1976) note, requirements for representation could be applied not only to the separate Services, but also with respect to broad skill areas within the Services (i.e., combat arms, supply, administration, etc.), specific occupational skill groups within the Services (i.e., specific MOSs), the geographical distribution of personnel according to branch units and echelons, or the general distribution of representational group members by rank within units and subdivisions of units (the smallest extreme being an infantry platoon or squad). Concern over termination of the draft has also caused a focus of attention to be placed on the *enlisted force*. As Segal and Daina (1975) point out, this practice builds a bias into any comparison with the civilian population--since officers tend to differ from enlisted accessions.

The variables most often used in representational studies are those which are seen to influence military effectiveness or relate to prevalent sociopolitical policy. Although the measurement of representation has therefore been limited to a somewhat standardized set of criteria, there is an endless variety of variables which may be said to affect the broadly-stated goals of Army representation. For example, other measures may include anatomical features, crime rates, the entire range of attitudinal measures (including general sociopsychological measures, job satisfaction, political attitudes, aggresiveness, perceptions of life-controls, self-esteem, values, quality of life perceptions, attitude changes over time, etc.), religious preferences and activity, physical prowess and dexterity, mechanical ability, and so on--most of which interact and overlap with the standard variables of comparison.

Since there is a great deal of interaction between factors, it is also frequently difficult to separate groups and distinguish membership on the basis of representational attributes. The term "race", for example, when used in reference to the Armed Forces, normally includes Whites, Blacks, American Indians, and "Other" racial/*ethnic* groups (Coffey, et. al., 1975). While this category in itself suggests some degree of ambiguity, strict interpretations of race or ethnic origin may not be totally acceptable or adequate measures of representation. As Nathan Glazer (1975) notes, "statistical representation in employment, education, and residence insist that it is possible to divide the racial and ethnic groups with precision and assign them... to a class for which a strict statistical parity must be required" (p. 203). In respect to affirmative action programs, Glazer further observes that representational policies are frequently based on "two equally inadequate views of the nature of racial and ethnic groups": first, that groups and membership of groups are easily bounded and defined, and completely uniform in the conditions of those included in them; and second, that policies designed to benefit the group will be equitably applied and received (p. 202).

Regardless of the problems in delimiting categories and groups is the understanding that measures of Army representation serve no useful purpose unless they can be related to the military, political, and social needs of the nation. There is likewise no reason for viewing Army "representation" per se as *necessarily advantageous* in all cases. True representation, for example, would mean that the Army reflect the best *as well as the worst* aspects of society in its membership and organizational structure. When considering needs, it is also necessary to draw a distinction between the organizational requirements of the Army and the sometimes incompatible prescription for proportional representation.

Representation is, in actuality, primarily a *political question*--dependent first and foremost on political expressions and interpretations of national needs. A practical definition of Army representation is one, therefore, which relates differences between Army and civilian groups to *national policy objectives.* In the previous section, these objectives were divided into the three general areas of military effectiveness, social equity, and political legitimacy. (Although the fundamental principles of legitimacy and equity are well-grounded in philosophical thought, policy-directed interpretations are political issues.) By correlating the scope of representational analysis with these policy guidelines, it becomes possible to construct a conceptual model and to evaluate pertinent data.

2. ARMY REPRESENTATION: A CONCEPTUAL MODEL AND FRAMEWORK FOR RESEARCH

It was shown in the previous section that definitions of Army representation abound since (1) the possible range of characteristics for proportional measurement are virtually limitless, (2) there is justification for using a variety of groups as the national civilian standard for comparison, and (3) there is justification for using various aggregations and combinations of groups from the Army as the objects of proportional measurement. The case was also made for limiting serious evaluation of representation to those factors which bear directly on the issues of military effectiveness, social equity, and political legitimacy. This model is a further attempt to build a conceptual framework and functional definition of Army representation.

The Convergence/Divergence Model of Army Representation

In The American Enlisted Man, Charles C. Moskos (1970) discusses the emergent military establishment and presents a "convergent-divergent model" of the armed forces and society. Moskos conceives of this model as being a *continuum* or *scale*, ranging from a military organization highly differentiated from civilian society to a military system that is highly convergent with civilian structures. In establishing a range of variables, Moskos notes that at least four subjects should be considered: *membership* (i.e., that the armed forces are representative of the broader society), *institutional* parallels or discontinuities in the social organization of military and civilian structures, differences in required *skills* between military and civilian occupations, and *ideological* distinctions.

Starting with this basic conceptual premise--i.e., that a scale may be constructed, along which the military is more or less overlapping with civilian society--and building upon the synthesis of issues presented in Section 1.2, a limited convergence/divergence model of Army representation may be developed. Basically, it is assumed that (under hypothetical conditions) a perfectly "representative" group of Army accessions may be drawn from the national population. This group of Army accessions--allowing for some definition of groups or guidelines by which the Army and civilian populations can be compared--is depicted as a part of the national population, "representing" the national population in perfect proportion, as a core or *cross-section* of all population characteristics.

Reality, however, has shown that *perfect representation* is probably not possible. Nevertheless, we may conceive of perfect representation--regardless of justification or impracticality--as a *scale* for measuring the social composition of the armed forces and determining the convergence/divergence of its membership. Where policy is directed at some form of "representation", perfect proportion may also be used as an objective measure of policy effectiveness.

Perfect Army representation is depicted in the Convergence/Divergence Model (Figure 2.1)as a miniaturized version of the national population. Since the idealized state of perfect representation cannot be achieved under normal conditions, a boundary of *approximate representation* is constructed, using the objectives of equity, legitimacy, and effectiveness as limiting standards--and beyond which these objectives are no longer possible. If the configuration of Army accessions stays within this boundary, it may be defined as representative.

Government policy, the economic environment, incentives and conditions for enlistment, attitudes, etc., all change over time and the configuration or core of Army personnel will undoubtedly shift within the national population. As the Army membership shifts, the configuration may take on various forms (drawn with broken lines in Figure 2.1). Gravitation or stretching out of the bounds of representation can therefore occur at any or all points and affect the limits of equity, legitimacy, and effectiveness in several possible ways.

For example, it may be possible that a considerable rise in the number of accessions from one socio-economic stratum of society or a disproportional rise in the number of college graduates will stretch the Army configuration beyond the bounds of equity (and possibly, legitimacy). However, it is not altogether certain that this shifting will in any way lower military effectiveness. A rise in the number of accessions capable of being described as "mercenaries" or militarily-aggressive may shift the configuration beyond the bounds of legitimacy as well as effectiveness. Similarly, a rise in the number of low-aptitude accessions could affect equity, legitimacy, and effectiveness.

It is also clear that Army differences (under or over) from perfect representation--while negatively affecting the objectives of one area--may actually benefit the achievement of another. Some would argue, for example, that an overrepresentative proportion of high school graduates, though *un*representative, raises levels of military effectiveness. Disproportionate representation for certain categories, therefore, may have to be relatively extreme in order to pass over some objective boundary. It can also be argued that the issue of military effectiveness is not *directly* affected by the representative nature of the Army, as in the case of legitimacy and equity. This is especially true when perfect representation is used as a norm for the achievement of an objective.

The point is that shifting representation (according to various subcategories) will have different effects on the boundaries of convergence/divergence. There is some overlapping of the three objectives, as they are affected by changing patterns of representation. However, "divergence" from perfect representation may not be divergence from any or all of the objectives by which representational goals are defined.

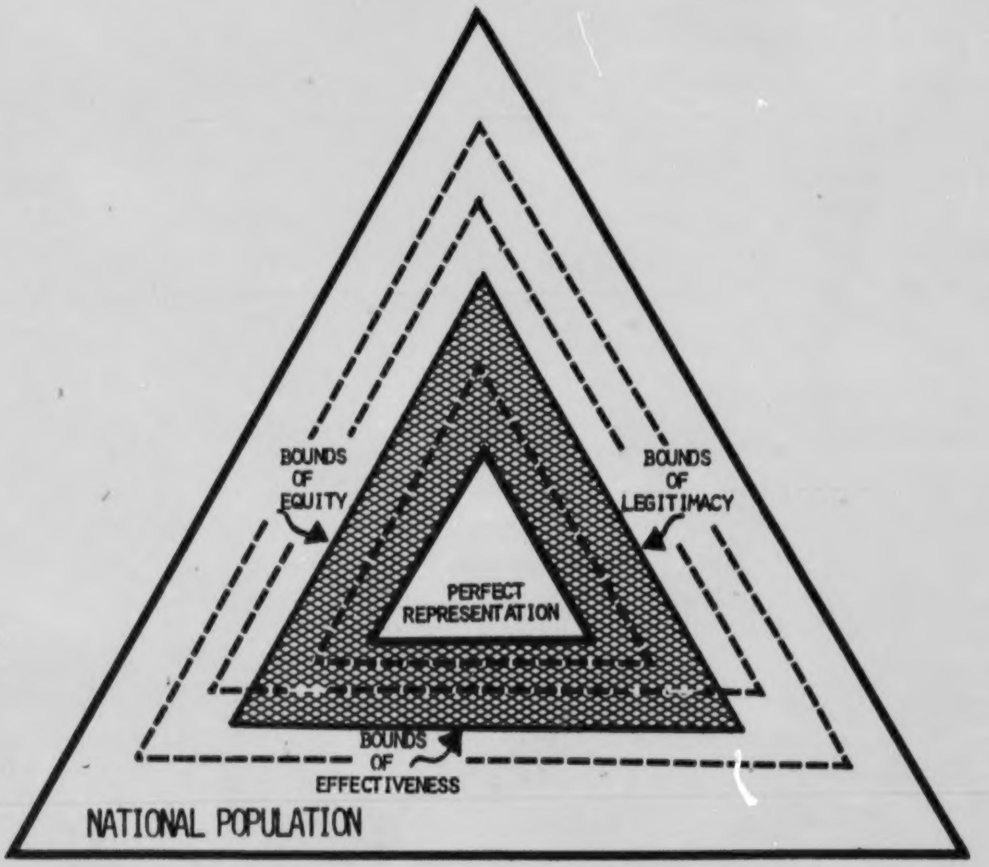

BOUNDS OF EQUITY
BOUNDS OF LEGITIMACY
PERFECT REPRESENTATION
BOUNDS OF EFFECTIVENESS
NATIONAL POPULATION

Figure 2.1

Army Representation: Convergence/Divergence Model

Implications

The difficulty of applying this model in any policy sense involves, once again, definitions. We may broadly define "convergence" as a configuration of Army accessions which stays within the bounds of representational objectives; and, "divergence" as any configuration which does not. However, the limits on differences between actual Army membership and perfect representation involve some kind of agreement on the meaning of social equity, political legitimacy, and military effectiveness. Some agreement on these issues would have to precede the actual formulation of any policy objectives or limitations on divergence. By defining these limits, it will also be possible to evaluate the relative importance and the interrelationship between issues. Regardless of these difficulties, this model stands as one attempt to structure policy considerations and establish a conceptual framework for the evaluation of representational issues.

3. ANALYSIS OF REPRESENTATION DATA

In Section 1 an effort is made to develop a delimiting definition of Army representation. In Section 2 it is seen that, by focusing attention on prevalent policy objectives, a Convergence/Divergence Model of Army representation may be constructed. Although there is still no clear policy concurrence on the bounds of approximate representation, it is possible to evaluate extant data using the standard of perfect representation.

The following analysis draws upon information from several sources in order to obtain a perspective on patterns of Army representation. In the demographic evaluation (Section 3.1) the best available sources of representational data are culled to derive comparative statistics on the characteristics of age-similar civilians and Army enlistees. In a continuing analysis of the NLS (Section 3.2), high school graduates from the class of 1972 are observed over a period of 2½ years along several similar and new dimensions. Data from other sources are also interspersed to provide a measure of validity. Results are combined through composite indices of Army representation (Section 3.3) in an alternate approach to the study of proportional relationships and approximate representation. Section 4 then continues the analysis of representational data by examining the critical, though unexplored, area of attitudes and attitude changes over time.

3.1 Demographic Evaluation

In a recent study by Woelfel and Segal (1976) a comparison of selected Army and civilian demographic characteristics--i.e., race, marital status, educational attainment, and family income--was made for the purpose of examining the social representativeness of the Volunteer Army. The data set forth in Woelfel and Segal show Army enlistees generally to be less educated, to come from families with less income, and to consist of a higher percentage of Blacks and other racial minorities than their counterparts in the civilian population. These differences, according to Woelfel and Segal, correspond to differences in the general civilian population and the civilian labor force.

The purpose of this evaluation is to extend similar previous efforts to examine Army representativeness by comparing the most recently available Army enlistee data with data on the general civilian population *and* the civilian labor force. In addition, these data will provide a means for evaluating current and previous research which seeks to use national longitudinal survey data as an instrument of comparison.

Most of the Army statistics used in this evaluation have been extracted from the November 1975 Army Quarterly Survey, which has a reported reliability level between 95%±6% and 95%±9%.

Civilian data were obtained from population estimates in the Current Population Reports of the U.S. Bureau of the Census and from the Handbook of Labor Statistics, U.S. Department of Labor, Bureau of Labor Statistics.

Comparison of Demographic Characteristics

Race

Table 3.1 shows the racial composition of the Army enlistees, by paygrade, along with the racial composition of the age-eligible resident civilian population. For comparison purposes, civilian racial percentages were obtained for age groups according to the median age of Army personnel within each paygrade.

Table 3.1

Racial Composition, Male and Female Army Enlistees Compared to Age-Eligible Resident Civilian Population[a] 1975

Paygrade	Median Age for Paygrade	Age of Civilian Comparison Cohort	Percent White		Percent Black		Percent Other		Total	
			Army	Civilian	Army	Civilian	Army	Civilian	Army	Civilian
PV1	19.4	19	73.3	85.6	22.5	12.7	4.2	1.7	100.0	100.0
PV2	19.8	20	69.0	85.7	23.4	12.6	7.6	1.7	100.0	100.0
PFC	20.5	21	70.3	86.1	20.3	12.1	9.4	1.8	100.0	100.0
CPL/SP4	21.8	22	71.8	86.3	19.4	11.9	8.8	1.8	100.0	100.0
Total (E1-E4)	-	-	70.9	85.9	21.1	12.3	8.0	1.7	100.0	100.0
SGT/SP5	25.3	25	76.5	86.4	16.4	11.6	7.1	2.0	100.0	100.0
SSG/SP6	30.2	30	75.0	86.4	18.5	11.3	6.5	2.3	100.0	100.0
SFC/SP7	36.7	37	76.3	87.5	16.6	10.8	7.1	1.7	100.0	100.0
SGM,MSG,1SG	40.5	41	76.8	87.2	17.1	11.0	6.1	1.8	100.0	100.0
Total (E1-E8)	22.3	22	72.8	86.3	19.6	11.9	7.6	1.8	100.0	100.0

[a] Civilian statistics obtained from Current Population Reports, Series P-25, No. 614, "Estimates of the Population of the U.S. by Age, Sex, and Race: 1970 to 1975." Table used is for July, 1975. Army statistics obtained from November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN), HQ DA (DAPC-PMP-S).

Table 3.2

Racial Composition, Male and Female Army Enlistees Compared to Age-Eligible Civilian Labor Force, November, 1975

Paygrade	Median Age for Paygrade	Age of Civilian Comparison Cohort	Percent White		Percent Black		Percent Other		Total	
			Army	Civilian	Army	Civilian	Army	Civilian	Army	Civilian
PV1	19.4	18-19	73.3	88.3	22.5	10.4	4.2	1.3	100.0	100.0
PV2	19.8	20-24	69.0	87.6	23.4	10.7	7.6	1.8	100.0	100.0
PFC	20.5	20-24	70.3	87.6	20.3	10.7	9.4	1.8	100.0	100.0
CPL, SP4	21.8	20-24	71.8	87.6	19.4	10.7	8.8	1.8	100.0	100.0
Total, E1-E4	-	18-24	70.9	87.8	21.1	10.6	8.0	1.6	100.0	100.0
SGT, SP5	25.3	25-34	76.5	87.5	16.4	10.5	7.1	1.9	100.0	100.0
SSG, SP6	30.2	25-34	75.0	87.5	18.5	10.5	6.5	1.9	100.0	100.0
SFC, SP7	36.7	35-44	76.3	87.8	16.6	10.5	7.1	1.7	100.0	100.0
SGM, MSG, 1SG	40.5	35-44	76.8	87.8	17.1	10.5	6.1	1.7	100.0	100.0
Total, E1-E8	22.3	18-44	72.8	87.7	19.6	10.5	7.6	1.8	100.0	100.0

Sources: Civilian statistics were provided by the Bureau of Labor Statistics' Employment Analysis Division. Military statistics were obtained from the November 1975 Army Quarterly Survey, U.S. Army Military Center (MILPERCEN), HQ DA(DAPC-PMP-S).

Table 3.3

Percent Change 1974-75, Racial Composition of Male and Female Army Enlistees

	Percent White			Percent Black			Percent Other		
	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change
PV1	60.8	73.3	+12.5	28.3	22.5	-5.8	10.9	4.2	-6.7
PV2	61.9	69.0	+ 7.1	28.5	23.4	-5.1	9.6	7.6	-2.0
PFC	66.2	70.3	+ 4.1	24.3	20.3	-4.0	9.5	9.4	-0.1
CPL/SP4	67.9	71.8	+ 3.9	22.3	19.4	-2.9	9.8	8.8	-1.0
Total % Change (E1-E4)			+ 6.0			-4.2			-1.8

Table 3.4

Median Active Federal Military Service (AFMS), Army Enlistees by Paygrade (Male/Female)

Paygrade	Median Yrs Service	Median Calendar Yr Entering Army[a]
PV1	.3	1975
PV2	.6	1975
PFC	1.4	1974
CPL/SP4	2.7	1973
SGT/SP5	4.9	1971
SSG/SP6	10.2	1965
SFC/SP7	16.9	1958
SGM, MSG, 1SG	20.3	1955

[a] The median calendar year entering Army was derived by subtracting the median number of years in service from the date of the Army Quarterly Survey (November, 1975), U.S. Army Military Personnel Center (MILPERCEN). This gives an estimate of the "median yr." in which members of each paygrade entered the Army.

For enlisted personnel, Blacks and other ethnic groups are still "overrepresentative" in the Army than in the civilian population.

A comparison of figures on race for 1974 and 1975 shows that these differences in representation are decreasing. Table 3.3 presents the changes in racial composition from 1974 to 1975. In paygrades E1-E4, the pay levels where most new enlistees are found, there has been a 6% increase in the percentage of whites, with a corresponding decrease of 4.2% for Blacks and 1.8% for "other" racial/ethnic groups.

Marital Status

In Table 3.5, the marital status of enlisted personnel is compared with that of civilians in similar age groups. The data indicate that at the E-1 level there is a much greater percentage of married Army personnel than the age-similar civilian cohort (20.4% vs. 6.9%). As pay levels increase to CPL/SP4 the comparative proportion of married enlisted personnel decreases and then increases again to an overall level higher than the civilian cohort.

This great disparity in marital status between Army and civilian groups has been attributed to several possible factors. It has been suggested, for example, that age-similar civilians might show a higher propensity to postpone marriage commitments in favor of completing post-high school educational plans (Woelfel and Segal, 1976). However, as Table 3.6 indicates, even when compared to the age-eligible civilian labor force the Army is higher *overall* for the E1-E4 paygrades--especially at the E-1 and E-4 levels. A more likely explanation might involve some combination of elements--solutions to immediate personal problems (cf. Ittemore, 1976), the chance to acquire skills and options for the future, monetary

Table 3.5

Marital Status of Army and Civilian Sectors, by Paygrade of Army Personnel, 1975

Paygrade	Median Age for Paygrade	Age of Civilian[a] Comparison Cohort	Percent Married	
			Army[b]	Civilian
PV1	19.4	18-19	20.4	6.9
PV2	19.8	20-24	29.1	38.6
PFC	20.5	20-24	31.5	38.6
CPL/SP4	21.8	20-24	50.4	38.6
Total (E1-E4)	-	-	35.1	29.0
SGT/SP5	25.3	25-29	73.5	73.4
SSG/SP6	30.2	30-34	89.1	83.7
SFC/SP7	36.7	35-39	90.9	86.2
SGM,MSG,ISG	40.5	40-44	89.5	87.2
Total (E1-E8)	-	-	54.5	64.8

[a] Civilian statistics obtained from Current Population Reports, Series P-20, No. 287, "Marital Status and Living Arrangements: March 1975."

[b] Army statistics available only for males. Hence, figures presented here for both Army and civilians are for males only. Army statistics obtained from November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN), HQDA(DAPC-PMP-S).

Table 3.6

Marital Status of Army and Age-Eligible Civilian Labor Force Sectors, by Paygrade of Army Personnel, 1975

Paygrade	Median Age for Paygrade	Age of Civilian Comparison Cohort	Percent Married	
			Army	Civilian
PV1	19.4	18-19	20.4	8.9
PV2	19.8	20-24	29.1	41.0
PFC	20.5	20-24	31.5	41.0
CPL, SP4	21.8	20-24	50.4	41.0
Total E1-E4	-	18-24	35.1	32.4

Source Civilian statistics obtained from the Bureau of Labor Statistics' Division of Labor Force Studies. The base of the figures is the annual average of the civilian labor force for 1975. Military statistics obtained from the November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN), HQDA(DAPC-PMP-S). Both Army and Civilian data are for males only.

incentives and a wide array of benefits, a tight job market, etc.--which creates a motivation for enlistment among those who have previously accepted or plan to accept marital responsibilities.

Educational Attainment

The distribution of enlisted men by level of educational attainment is shown in Tables 3.7 and 3.9 along with the distribution of age-similar civilians. The data indicate that lower-ranking enlisted personnel tend to be drawn from the lower educational levels.

When compared with civilians of their own age group, Army enlistees are present in higher proportions in the "high school" and "less than high school" categories, while in lower proportions at the college graduate level and beyond.

In the 1-3 years college category, there is a substantial difference between the E1-E4 and the E5-E8 level. E1 through E4 cohorts are underrepresented in all college categories and there is a noticeable difference in the proportions of college graduates in all Army categories. Nevertheless, there is a remarkably higher percentage of higher paygrade (E-5 through E-8) Army personnel in the 1-3 years college level of educational attainment than all civilian comparison age cohorts.

The Army also shows a proportionately larger share of high school graduates than does the civilian sector. This difference may be due to the Graduate Equivalency Diploma (GED)program in the Army. Overall, it may be said that the Army compares very favorably with the civilian population on the basis of educational attainment (below college) in the higher-age cohorts. This may be attributed in a large part to in-service educational benefits and related Army incentives to raise EM educational levels.

Table 3.7

Educational Attainment, Army[a] and Civilian Sectors,[b] by Paygrade of Army Personnel

Paygrade	Median Age for Paygrade	Age of Civilian Comparison Cohort	Less than HS Grad		HS Grad [c]		1-3 Yrs Coll.		Coll Grad		Post Coll Trng		Total	
			Army	Civilian	A	C	A	C	A	C	A	C	A	C
PV1	19.4	18-19	35.5	41.3	54.8	46.6	9.8	12.1	-	-	-	-	100.0	100.0
PV2	19.8	20-21	28.5	17.6	61.2	43.9	9.7	38.0	.6	.6	-	-	100.0	100.0
PFC	20.5	20-21	19.9	17.6	59.7	43.9	18.5	38.0	2.2	.6	-	-	100.0	100.0
CPL/SP4	21.8	22-24	12.8	13.5	65.9	39.3	18.5	28.2	2.2	15.5	.6	3.5	100.0	100.0
Total (E1-E4)	-	-	22.1	23.1	61.3	42.9	15.0	26.2	1.5	6.5	.2	1.4	100.0	100.0
SGT/SP5	25.3	25-29	4.0	15.5	59.3	37.2	33.6	22.2	3.1	14.9	-	10.2	100.0	100.0
SSG/SP6	30.2	30-34	2.6	20.1	64.0	37.4	29.9	16.8	1.4	12.5	-	13.2	100.0	100.0
SFC/SP7	36.7	35-44	2.2	28.1	67.6	36.8	32.3	13.8	2.9	10.4	-	10.7	100.0	100.0
SGM,MSG, ISG	40.5	35-44	3.5	28.1	54.1	36.8	38.9	13.8	2.7	10.4	.7	10.7	100.0	100.0

[a] Army statistics available for males only. Hence, the figures presented here for both Army and civilian are for males only. Army statistics obtained from November 1975 Army Quarterly Survey,U.S. Army Military Personnel Center (MILPERCEN), HQ DA (DAPC-PMP-S).

[b] Civilian statistics derived from Current Population Reports, Series P20, No. 295, "Educational Attainment in the U.S., March 1975."

[c] HS Grad includes individuals with equivalency certificates.

Table 3.8

Educational Attainment of Male Enlistees, Percent Change, 1974 to 1975

Paygrade	Less than HS Grad			HS Grad			1-3 Some College			Coll Grad			Post Grad		
	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change
PV1	43.3	35.5	-7.8	47.3	54.8	+7.5	7.3	9.8	+2.5	2.0	0	-2.0	0	0	0
PV2	35.9	28.5	-7.4	52.2	61.2	+9.0	10.6	9.7	- .9	.3	.6	+ .3	1.0	0	-1.0
PFC	23.3	19.9	-3.4	58.2	59.7	+1.5	17.0	18.5	+1.5	.7	2.2	+1.5	.8	0	- .8
CPL/SP4	13.4	12.8	- .6	65.8	65.9	+ .1	18.3	18.5	+ .2	2.1	2.2	+ .1	.4	.6	+ .2
Total % Change (E1-E4)			-4.1			+3.8			+ .7			+ .2			- .2

Table 3.9

Educational Attainment, Army and Civilian Labor Force, by Paygrade of Army Personnel[a]

(Males Only)

Paygrade	Median Age for Paygrade	Age of Civilian Comparison Cohort	Less Than High School Graduate		High School[b] Graduate		College 1-3 Years		College 4-Years		College 5 or more Years		Total	
			Army	Civilian	Army	Civilian	Army	Civilian	Army	Civilian	Army	Civilian	Army	Civilian
PV1	19.4	18-19	35.5%	39.5%	54.8%	51.5%	9.8%	9.2%	-	-	-	-	100%	100%
PV2	19.8	20-24	28.5%	16.1%	61.2%	45.1%	9.7%	27.1%	.6%	10.0%	-	1.7%	100%	100%
PFC	20.5	20-24	19.9%	16.1%	59.7%	45.1%	18.5%	27.1%	2.2%	10.0%	-	1.7%	100%	100%
CPL,SP4	21.8	20-24	12.8%	16.1%	65.9%	45.1%	18.5%	27.1%	2.2%	10.0%	.6%	1.7%	100%	100%
TOTAL E1-E4			22.1%	22.1%	61.3%	46.8%	15.0%	22.5%	1.5%	7.4%	.2%	1.3%	100%	100%

[a] Civilian Labor Force Statistics are based on March 1975 and were obtained from Educational Attainment of Workers, March 1975, Special Labor Force Report 186, Bureau of Labor Statistics.

Army Statistics are from the November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN), HQ DA (DAPC-PMP-S).

[b] High SChool Graduate includes individuals with equivalency certificates.

When observing the change in educational attainment levels among enlistees from 1974 to 1975, it should also be noted that there has been a decrease in accessions with less that 4 years high school, and a corresponding increase in those with a high school diploma. There has been a very slight increase (less than 1%) in the number of enlistees with 1-3 years college and college degrees.

Family Income

Army vs. civilian statistics on family income are presented in Table 3.10. The Army figures are parents' income as reported by new enlistees. To adjust civilian data for changes in family income over time, the following steps were taken. First, the median number of years -in-service for each paygrade was determined (cf. Table 3.4). The median year in which members of each paygrade enlisted was then derived by subtracting the median number of years-in-service from the date of the current Army survey (in this case, November 1975). Civilian income figures were obtained for each of these "median years."

Generally, a greater percentage of E1-E4s may be said to come from families with lower levels of income than their civilian counterparts--with the greatest discrepancy in the $5000-$8999 category. Accordingly, there are proportionally fewer E1-E4s from families with income levels over $15,000.

It should be noted that survey data relating to income are subject to considerable response bias, including respondents' lack of knowledge of their families' income. When comparing 1974 levels of family income of Army enlistees to those of 1975 (cf. Table 3.11), it should also be observed that there was a decrease in accessions whose families make under $10,000 and a sizeable increase (7.9%) in accessions from families with incomes of $15,000 and over.

Table 3.10

Yearly Income[a] of Families of Army Enlistees (Male/Female) at Time of Entry into Army, by Paygrade, vs. Income of Families in U.S.[b]

Paygrade	Median Yr. Entering Army	Comparison Yr. Civilian Pop.	Less than $5000		$5-9999		$10-14,999		$15,000 & Over		Total	
			Army	Civilian	A	C	A	C	A	C	A	C
PV1	1975	1975	16.0	13.1	22.9	22.7	31.4	24.3	29.7	39.8	100.0	100.0
PV2	1975	1975	15.8	13.1	29.0	22.7	27.8	24.3	27.4	39.8	100.0	100.0
PFC	1974	1974	15.4	14.7	28.3	24.6	25.7	25.5	30.6	35.4	100.0	100.0
CPL/SP4	1973	1973	19.3	16.6	34.5	26.9	23.1	26.1	23.1	30.3	100.0	100.0
Total (E1-E4)	-	-	16.9	14.4	29.9	24.2	26.1	25.0	27.1	36.4	100.0	100.0

[a] Income in current dollars.

[b] Civilian Statistics derived from Current Population Reports, Series P-60, No. 101, "Money Income in 1974 of Families and Persons in the U.S." Army Statistics obtained from November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN), HQ DA (DAPC-PMP-S).

Table 3.11

Percent Change, 1974-75, of Yearly Income[a] of Families of Army Enlistees (Male/Female) at Time of Entry into Army, by Paygrade

Paygrade	Less than $5,000			$5-9999			$10-14,999			$15,000 & Over		
	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change	1974	1975	% Change
PV1	22.6	16.0	-6.6	31.7	22.9	-8.8	26.3	31.4	+5.1	19.4	29.7	+10.3
PV2	23.8	15.8	-8.0	32.4	29.0	-3.4	24.3	27.8	+3.5	19.5	27.4	+ 8.1
PFC	22.4	15.4	-7.0	29.4	28.3	-1.1	27.0	25.7	-1.3	19.2	30.6	+11.4
CPL/SP4	21.3	19.3	-4.0	33.1	34.5	+1.4	26.1	23.1	-3.0	19.5	23.1	+ 4.1
Total % Change (E1-E4)			-6.2			-1.8			+ .13			+ 7.9

[a] Income in current dollars.

Table 3.12

Comparison of State Distributions of U.S. Male Populations (Ages 17-21), FY 1975[a]

State (ranked in pop. order)	% of U.S. Male Military Available Pop. Ages 17-21	Cumulative Percent	Army Accessions FY 1975	
			% of Total	Cumulative % of Total
CA	8.5		8.3	
NY	8.3		6.5	
PA	6.0		4.6	
TX	5.7		6.7	
OH	5.4		4.7	
		33.9		30.8
ILL	5.3		4.1	
MI	4.7		4.8	
FL	3.5		4.3	
NJ	3.4		2.6	
IN	2.8		2.6	
		53.6		49.2
MA	2.6		2.1	
WI	2.5		1.8	
NC	2.4		3.4	
GA	2.4		3.1	
MO	2.2		2.2	
		65.7		61.8
MN	2.1		1.8	
TN	2.1		2.1	
VA	2.0		2.7	
MD	1.9		1.9	
LA	1.9		1.6	
		75.7		71.9
AL	1.8		2.2	
KY	1.6		1.6	
WA	1.6		1.7	
IA	1.6		1.1	
CN	1.5		1.0	
		83.8		79.5
MS	1.3		1.4	
SC	1.3		1.6	
OK	1.2		1.5	
CO	1.1		1.3	
KS	1.1		0.9	
		89.8		86.2

[a] Table derived from Johnston and Guy, The Volunteer Force: Can It Be Sustained, (Washington, D.C.; April, 1976).

Table 3.13

Comparison of Regional Distributions of U.S. Population (Ages 17-22) and Army Enlisted Accessions, FY 1974 and 1975

Region	Percent U.S. Civilian Pop. Ages 17-21		Percent Non-Prior Svc. Accessions for Army FY 1974		FY 1975	
No. (Thousands)			182.2		184.5	
Percent	100.0		100.0		100.0	
Northeast						
New England	5.5		3.7		4.8	
Middle Atlantic	17.0		10.7		13.8	
Total		22.5		14.4		18.6
North Central						
E. North Central	20.0		15.3		17.9	
W. North Central	8.1		7.1		7.4	
Total		28.1		22.4		25.3
South						
South Atlantic	14.8		20.8		18.6	
E. South Atlantic	6.6		8.9		7.2	
W. South Central	9.7		12.1		10.9	
Total		31.1		41.8		36.7
West						
Mountain	4.3		5.2		4.8	
Pacific	12.5		14.4		13.0	
Total		16.8		19.6		17.8
Other	1.5		1.8		1.5	

Source: Data extracted from Population Representation in the All-Volunteer Force, Fred Suffa, OASD(M&RA)MPP, November 28, 1975.

Table 3.14

Male Non-Prior Service Accessions for Army FY 75 by Region Codes and States Within Regions

Northeast (1)		North Central (2)		South (3)		West (4)	
Maine	842	Ohio	7498	Delaware	435	Montana	590
New Hampshire	729	Indiana	4098	Maryland	3100	Idaho	703
Vermont	352	Illinois	6531	District of Columbia	645	Wyoming	199
Massachusetts	3303	Michigan	7644	Virginia	4259	Colorado	2068
Rhode Island	649	Wisconsin	2817	West Virginia	1598	New Mexico	1080
Connecticut	1615	Minnesota	2918	North Carolina	5423	Arizona	1717
New York	10296	Iowa	1780	South Carolina	2545	Utah	864
New Jersey	4158	Missouri	3437	Georgia	4968	Nevada	395
Pennsylvania	7315	North Dakota	461	Florida	6911	Washington	2626
		South Dakota	545	Kentucky	2586	Oregon	1811
		Nebraska	872	Tennessee	3377	California	15345
		Kansas	1502	Alabama	3438	Alaska	126
				Mississippi	2154	Hawaii	602
				Arkansas	1953		
				Louisiana	2582		
				Oklahoma	2366		
				Texas	10715		
Totals*	29,259 18.7%		40,103 25.6%		59,055 37.7%		28,126 18.0%

* Total 156,543 Accessions in U.S. (excludes 2,542 territorial accessions)

Source: Data obtained from MARDAC Report No. 0555.

Table 3.15

Male Non-Prior Service Accessions for Army
FY 74
by Region Codes and States Within Regions

Northeast (1)		North Central (2)		South (3)		West (4)	
Maine	854	Ohio	6048	Delaware	380	Montana	649
New Hampshire	659	Indiana	3477	Maryland	2477	Idaho	737
Vermont	321	Illinois	5929	District of Columbia	632	Wyoming	277
Massachusetts	2461	Michigan	6855	Virginia	4974	Colorado	2132
Rhode Island	471	Wisconsin	2414	West Virginia	1723	New Mexico	1430
Connecticut	1214	Minnesota	2458	North Carolina	8102	Arizona	1876
New York	8507	Iowa	1971	South Carolina	3547	Utah	803
New Jersey	3196	Missouri	3290	Georgia	5716	Nevada	467
Pennsylvania	6028	North Dakota	509	Florida	7394	Washington	3530
		South Dakota	519	Kentucky	3167	Oregon	2420
		Nebraska	1008	Tennessee	4121	California	16727
		Kansas	1604	Alabama	4553	Alaska	192
				Mississippi	2934	Hawaii	861
				Arkansas	2229		
				Louisiana	3489		
				Oklahoma	2372		
				Texas	12035		
Totals*	23,711 14.7%		36,082 22.3%		69,835 43.2%		32,101 19.8%

*Total 161,729 accessions in U.S. (excludes 3379 territorial accessions)

Source: Data obtained from MARDAC Report No. 0555

Table 3.16

Male Non-Prior Service Accessions for Army
FY 73
by Region Codes and States Within Regions

Northeast (1)		North Central (2)		South (3)		West (4)	
Maine	968	Ohio	9514	Delaware	372	Montana	831
New Hampshire	577	Indiana	5015	Maryland	2887	Idaho	858
Vermont	352	Illinois	9177	District of Columbia	597	Wyoming	292
Massachusetts	3325	Michigan	7476	Virginia	5370	Colorado	1980
Rhode Island	569	Wisconsin	4086	West Virginia	2286	New Mexico	1202
Connecticut	1456	Minnesota	4006	North Carolina	7729	Arizona	1936
New York	11339	Iowa	3032	South Carolina	3478	Utah	1035
New Jersey	4225	Missouri	4586	Georgia	6127	Nevada	511
Pennsylvania	8270	North Dakota	759	Florida	7753	Washington	4130
		South Dakota	744	Kentucky	4197	Oregon	2670
		Nebraska	1463	Tennessee	4546	California	18537
		Kansas	1723	Alabama	4859	Alaska	304
				Mississippi	2439	Hawaii	771
				Arkansas	2399		
				Louisiana	3821		
				Oklahoma	2737		
				Texas	12650		
Totals*	31,081 16.2%		51,581 26.9%		74,247 38.7%		35,057 18.3%

*Total 191,966 accessions in U.S. (excludes 2,671 territorial accessions)

Source: Data obtained from MARDAC Report No. 0555

Geographic Representation

Table 3.12 compares the percent share of male youths recruited with the percent share of available male population (ages 17-21), on a state-by-state basis. The states are ranked in population order, and only the 30 most populous states are included.

From these data, the Volunteer Army appears to be relatively successful in competing for youths from all sections of the country. For example, 49.2% of the male enlistees were recruited from the 10 most populated states (which account for approximately 54% of the 17-21 year-old males).

For comparison on a regional basis, the distribution of the youth population (ages 17-21) is presented along with the FY 1974 and 1975 enlistments in Tables 3.13 through 3.16. These data indicate that new accessions are disproportionately representative of the West by a small margin and the South to a greater degree--with the greatest disparity being underrepresentation of the Middle Atlantic region and overrepresentation of the South Atlantic states. As Suffa (1975) observes, however, although new enlistees are drawn in greater proportions from the Southern and Western regions of the country, the FY1975 distribution of accessions is nearer to the national distribution of youth than the FY1974 distribution.

Discussion

During the 1971 House Armed Services Committee hearings on the extension of the draft, Chairman F. Edward Hebert wryly remarked that, under present circumstances, "... the only way to get an all-voluntary Army is to draft it" (H.A.S.C. No. 92-2 , p. 36). Five years later, military analysts would claim before a joint MORS/TIMS symposium that "for the first time in two generations the military service has successfully competed in the open market for the loyalties and services of the country's youth" (Johnston and Guy, 1976, p. 1).

A recent Congressional Research Service brief on the All-Volunteer Force states that, although the level of general controversy about the AVF has "dropped drastically" since its implementation, the discussion which still takes place centers on the *socioeconomic status* of volunteers and the philosophical implications of a volunteer military (Goldich, IB73021, 1976). The continuing publication of studies on the social composition and demographic characteristics of Army accessions supports the observation that "representation" is an enduring concern among policymakers and analysts. The most recent reports, however, generally agree that the social demography of the Army is not too divergent from comparative groups in the civilian population (e.g., Segal and Daina, 1975; Woelfel and Segal, 1976; Defense Manpower Commission, 1976; Coffey and Reeg, 1976; Coffey, et. al., 1975; Goldich, 1976; Johnston and Guy, 1976; Boorstin, 1975; Suffa, 1975; General Accounting Office, Feb., 1976; Brehm, 1976; etc.)

Aside from noticeable differences in racial composition (though trend data show a levelling off/decrease of differences) and modest differences in measures of socioeconomic background and educational attainment (which may in turn be somewhat affected by the larger differences in racial composition), the configuration of Army accessions does not appear to be radically dissimilar from the civilian population. The point is also frequently made that when Army membership is compared to the membership of similar occupational fields in the civilian sector, some of these social differences decrease (Suffa, 1975; Segal and Daina, 1975; Woelfel and Segal, 1976). One DoD comparison of Black representation even went so far as to break down labor activities into non-farm labor only--principally construction and manufacturing--where Blacks constitute approximately the same percentage of the working force as they do in the enlisted ranks of the Army (Brehm, 1975; no age differences are used here, so Army/civilian groups are assumed to comprise the *total* force).

The demographic data collected for the present evaluation of Army representation do not break the labor force down by activities. The purpose for using the *aggregate* labor force is based on the notion that, while motivations for continuing (directly after high school) in higher education may be somewhat removed from major motivations for enlisting in the Army (cf., for example, Opinion Research Corporation, 1974; Eisenman, et. al., 1975; MARDAC, 1975; Gilbert Youth Research 1975 ; Goral and Lipowitz, 1974), the Army does compete in the entire labor marketplace *as a job*. In contrast with the findings of previous analyses, the present comparison of the racial composition of the labor force with that of the Army shows a greater disparity than similar comparisons with the general civilian population (Tables 3.1 and 3.2). Comparisons of the Army with the civilian labor force for educational attainment (Table 3.9) and marital status (Table 3.6), however, do reduce differences in each category.

Segal and Daina (1975), in a similar study of the social composition of the Army, note that, while there are usually statistically significant differences between the social background characteristics of Army and civilian comparison groups, many differences are actually small--their significance being attributable to the large case bases of the groups. Segal and Daina also observe that the use of various methods of comparison can have an impact on the range of perceived difference. For example, the inclusion of *officers* in the Army comparison group would probably reduce some differences--notably economic background, educational attainment, and race--since the enlisted levels of the Army are generally more disparate from civilian structures than the officer corps. In addition, when comparisons are made to those who served during the period of military conscription--instead of the idealized state of perfect representation--differences are also reduced.

In Section 1, an attempt was made to define Army representation. The wide range of comparative groupings made it necessary to develop a definition based on policy objectives. Nevertheless, the observations of Segal and Daina (1975) can be used to further illustrate a point concerning the application and interpretation of representational data. Depending on which groups are chosen for comparison, Army demographic data may be made to appear either favorable or less than favorable. As the Defense Manpower Commission (1976) notes, there are widely varying ideas on what numerical and percentage levels should be appropriate measures. For example, should the percentage of Blacks in the Army (recent accessions or total force or total enlisted force) be compared with (1) the proportion of Blacks in the youth population, i.e., 13%, (2) the proportion of Blacks in the general population, 11.6%, (3) the proportion of Blacks among college graduates, 6%, (4) the proportion of military-available Blacks in the labor force, 10.6% or (5) the total percentage of Blacks in the manufacturing and construction areas of the labor force, 21%? Analyses of representational data may use several possible standards for comparison (e.g., the 1964 Army accessions, the general conscripted force, an idealized state of perfect representation) as well as internal distinctions (e.g., officer vs. enlisted, branches, echelons, occupational skills, etc.). The point is that it is important to consider and evaluate the reasoning or rationale behind the use of such comparative groupings. The choice of *how to compare* demographic data will often influence the level of perceived differences between the Army and civilian sectors of society.

Summary

The following generalizations are made from the results of this evaluation and a review of several recent studies of Army demographic data, based on similar comparative groupings of enlisted accessions (cf. Coffey and Reeg, 1976; Coffey, et. al., 1975; Defense Manpower Commission, 1976; Segal and Daina, 1975; Woelfel and Segal, 1976; Johnston and Guy, 1976; Cooper, 1975; G.A.O., Feb., 1976; MARDAC, 1975; Purcell, et. al., 1976).

Race - Blacks are overrepresented, but there is a trend downward.

Economic Status - The lower economic classes are not overrepresented to any substantial degree. More high economic classes were enlisted during the draft years than the AVF, and are now underrepresented--but not *un*represented. The bulk of accessions are coming from the middle-income segment of society, and there is reason to believe that the present system may somehow *favor enlistment from the middle range.* Data on the economic status of Army enlistees is somewhat unreliable, and pre-AVF figures are not available for comparison.

Region - Regional representation is improving, though large cities are underrepresented and rural areas are overrepresented. The traditional rural recruitment base is, therefore, being maintained. The Army is most overrepresentative of the South Atlantic region and most underrepresentative of the North East. Approximately one-half of all accessions come from the ten most populated states, and percentages of new enlistees correspond well to the percentage of the youth population in each state. Overall, there is no perceived problem in regional representation and evidence that there has been little change in the regional composition of enlisted accessions since termination of the draft.

Education and Aptitude - The lowest level of mental aptitude is unrepresented due to quality restrictions on enlistment. Generally, comparisons of aptitude show a tendency toward underrepresentation in the above-average category, substantial overrepresentation in the average levels, and underrepresentation in the below-average categories.

By educational attainment, the Army compares favorably with age-similar civilians--where "favorably" equals either representation or *over*-representation of high school graduates and above--but, the Army compares most favorably with the age-similar civilian labor force. Overall, there has been a steady decline in the number of non-high school graduates (and Category IV's), a decrease (since the draft) in the number of college-trained accessions, and an increase in the number of high school graduates. Army high school graduates are overrepresented in every age-category among newly enlisted accessions, while comparative proportions of non-high school graduates in the lower pay-grades are relatively close. At the 1-3 years-of-college level, the Army is very underrepresented in the lower pay-grades, but very overrepresented in the higher pay-grades. The influence of in-service educational opportunities is apparent in raising overall levels of Army educational attainment. The addition of educational data on the officer corps would be expected to raise Army levels of educational attainment in all categories.

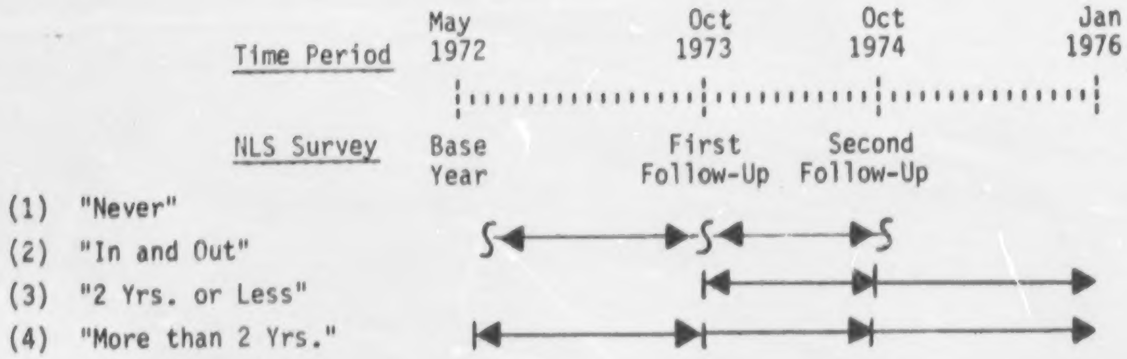
3.2 NLS Second Follow-Up

In a pilot study on Army representation (Purcell, et. al., 1976) for the Army Research Institute for the Behavioral and Social Sciences, the National Longitudinal Study (NLS) of the High School Class of 1972 (Base Year and First Follow-UP) was used as the principal source of information. In May of 1976 the NLS Second Follow-Up was made available to researchers through the National Center for Education Statistics (NCES). The Second Follow-Up survey holds particular relevance for the present study by facilitating comparisons of Army representation between several similar and new parameters--as well as providing a broader longitudinal frame of reference.

The treatment of activities and plans over the period covered by the NLS Second Follow-Up also made possible the identification of four "Army status" groups: (1) those who never entered the Army (and the civilian standard for comparison); (2) those who entered the Army after high school graduation, but were not on active duty at the time of the NLS Second Follow-Up (i.e., "in and outs," serving either a complete [and expeditious] two-year term or, more likely, less);(3) those who postponed entry into the Army until approximately 18 months after high school graduation (i.e., "late arrivals" with 2 years or less time in service and probably still completing a first-term enlistment); and (4) those who entered the Army soon after high school graduation and remained in the Army through the time of the NLS Second Follow-Up (i.e., those with more than 2 years service who may still be in the Army). The classification of groups by their approximate time in service was determined on the basis of responses to questions contained in the NLS. The approximate periods of service for each group are depicted in Figure 3.1.

Figure 3.1

Time Periods of Army Service by Four Groups of NLS Respondents


Time Period
May 1972
Oct 1973
Oct 1974
Jan 1976
NLS Survey
Base Year
First Follow-Up
Second Follow-Up
(1) "Never"
(2) "In and Out"
(3) "2 Yrs. or Less"
(4) "More than 2 Yrs."

Actual cell sizes for each group are presented in Table 3.17. The weighted cell sizes are based on weights computed by NCES--i.e., W-4, which rescaled the sample to the total high school graduating class of 1972. A further description of the NLS data base and a reproduction of NLS questions used in this analysis are presented in Appendices A and C, respectively.

Table 3.17

NLS Cell Sizes

Interpretative Label	"Never"	"In & Out"	"2 Years or Less"	"More Than 2 Years"
Unweighted	22,120	50	180	182
Weighted	2,995,832	1,256	21,192	22,520
Base %	98.52	.04	.70	.74

Snowflake Diagrams

This analysis of NLS data replicates the pilot study on Army representation (Purcell, et. al., 1976) in order to provide both continuity and a uniform reference on the representational characteristics of Army entrants from the high school graduating class of 1972. Similar procedures were used, therefore, in establishing the standards for comparison and method of analysis. The so-termed "snowflake diagrams" are a relatively new approach to graphical presentation, nevertheless, and a brief explanation of the computational procedure is offered as a guide to the uninitiated reader.

First, a polygon was drawn for the standard civilian population, using the percentage distribution of that population (by the variable subcategory reference points) as vertices. (Civilian percentage measures for these diagrams were drawn to a radius of 2 inches for each variable subcategory.) A similar polygon was then drawn for each of the three groups of Army entrants, using the following calculation for each characteristic of the subpopulation:

$$V_i = 2 \frac{PCT_i}{PCT_I}$$

where PCT_i is the percentage distribution of Army entrants (by groups) within each subcategory; and PCT_I is the percentage distribution of the standard population according to each subcategory.

The value of V_i , or the relative index (proportion) of the percent of each subcategory of each characteristic (as related to the standard population),was then plotted along a radius extending from the center of the polygon of the standard population. Thus, vertices on the Army entrant polygons (V_i) which lie *within* the civilian standard polygon are considered *under*representative measures; and, conversely, points (V_i) which lie *outside* the civilian standard polygon are *over*representative measures.

In this manner, it is possible to depict the proportional distribution of the Army entrant groups relative to the total population and to each other. In cases where representational differences do appear, reference should also be made to the calculations of statistical significance which appear in Table 3.19. The confidence limits for the snowflake diagrams were calculated at the 95% level of significance. These confidence limits are presented in Table 3.18.

Table 3.18

CONFIDENCE LIMITS FOR SNOWFLAKES
Based on a Standard Radius of 2 Inches

Base Actual %	n Sample Size	Inches of radius at which radius becomes significant	
		A Inside	B Outside
.1	50	.604	3.396
.2		1.070	2.930
.3		1.289	2.711
.4		1.430	2.570
.5		1.535	2.465
.6		1.620	2.380
.7		1.695	2.305
.8		1.768	2.233
.9		1.845	2.155
.1	180	1.264	2.736
.2		1.510	2.490
.3		1.625	2.375
.4		1.700	2.301
.5		1.755	2.245
.6		1.800	2.200
.7		1.839	2.161
.8		1.878	2.123
.9		1.918	2.082
.1	182	1.268	2.732
.2		1.512	2.488
.3		1.627	2.373
.4		1.702	2.299
.5		1.756	2.244
.6		1.801	2.199
.7		1.840	2.160
.8		1.878	2.122
.9		1.919	2.081

Table 3.19

SIGNIFICANT POINTS ON SNOWFLAKES*

Characteristic	Responses	In & Out	2 Yrs. or Less	More than 2 yrs.
Literacy Level	Low	-	2.478	2.602
	Medium	-	-	-
	High	-	1.460	1.557
Aptitude	Low	-	2.728	1.705
	Medium	1.018	-	-
	High	3.086	1.207	1.557
Race	White	1.560	1.831	1.737
	Black	7.467	3.778	4.022
	Other	0.	-	-
Socio-Economic Status	Low	3.896	3.785	2.582
	Medium	.936	1.382	-
	High	-	1.456	1.520
Region	North East	-	.960	1.476
	North Central	0.	-	-
	South	5.745	2.517	-
	West	0.	-	2.571
Father's Occupation	Professional, Managerial, Technical	3.137	1.421	1.532
	Clerical, Sales	0.	-	-
	Service	-	2.265	2.265
	Military	0.	4.667	4.148
Parents' Income	< 9 Thousand	3.054	3.038	2.522
	9-13.5 Thousand	.962	-	-
	13.5-18 Thousand	3.432	1.383	-
	18 Thousand +	0.	.784	-
High School Activities	Athletics	4.504	2.712	2.496
	Cheerleading, etc.	3.080	.793	1.322
	Debating, Music, Drama	6.098	1.622	-
	Hobby Clubs	0.	2.575	2.489
	Honorary Clubs	-	.435	.776
	Yearbook, Newspaper	-	1.412	-
	Subject Matter Clubs	-	1.240	1.473
	Student Government	6.469	-	-
	Vocational Education	0.	-	-
Important Goals in Life	Success	2.597	-	2.184
	Good Marriage	2.358	-	2.217
	Money	0.	3.664	-
	Friends	2.656	-	2.173
	Steady Work	1.231	2.429	2.324
	Community Leader	0.	-	5.508
	Better Opportunity for Children	-	2.820	2.605
	Living Close to Relatives	8.200	1.160	-
	Getting Away from this Area	0.	5.547	3.[illegible]47
	Correcting Social Injustices	-	3.381	3.44[illegible]
	Leisure Time	.957	-	-
	Good Education	3.503	2.536	2.448

Table 3.19

Significant Points on Snowflakes (Con't)

Characteristic	Responses	In & Out	2 Yrs. or Less	More than 2 yrs.
Important Factors in Selecting a Job or Career	Money	4.350	-	3.207
	Opportunity for Creativity	3.423	-	-
	Useful in Society	-	1.496	-
	Avoid High Pressure	0.	-	1.521
	Working in World of Ideas	2.971	-	-
	Freedom from Supervision	3.636	2.649	-
	Opportunity for Steady Progress	-	1.628	-
	Chance to be a Leader	2.587	2.587	3.445
	Working with People	-	1.467	-
	Position Looked Up to	4.138	2.583	3.004
Important Factors in Selecting Life's Work	Previous Experience	0.	-	1.641
	Relative/Friend in Service	0.	-	-
	Available Openings	0.	-	-
	Work Matches Hobby	0.	2.729	-
	Good Income	3.795	2.315	2.622
	Job Security	1,289	-	2.421
	Interesting Important Work	.972	-	-
	Freedom to Make Decisions	0.	-	2.433
	Opportunity for Promotion	1.333	2.244	2.530
	Working with Friendly People	1.204	2.176	-
Job Satisfaction	Pay and Fringe Benefits	0.	-	1.808
	Importance & Interest of Work	0.	-	1.808
	Working Conditions	0.	1.284	1.400
	Opportunity of Promotion with this employer	0.	-	2.263
	Opportunity for Advancement in this line of work	0.	-	-
	Opportunity to use past training	0	1.763	1.813
	Supervisor	2.445	1.743	1.602
	Opportunity for development of new skills	0.	1.737	-
	Work as a Whole	0.	1.676	1.831
	Respect Received from Others	0	-	-
Self Appraisal	I take a positive attitude toward myself	2,139	-	-
	Good luck is more important than hard work	0.	-	-
	I feel I am a person of worth	2.070	-	-
	I am able to do things as well as others	2.083	-	-
	Everytime I try to get ahead something stops me	4,910	-	-
	Planning only makes one unhappy, plans never work	5.578	-	-
	People who accept their condition in life are happier	0.	-	-
	On the whole I am satisfied with myself	.936	-	-

* Blank (-) signifies no statistically significant difference from the standard population. Numbers may be interpreted as inches from the center of the snowflake polygon, with 2 inches being the civilian standard in each category.

Analysis of Results

Snowflake diagrams were drawn from the crosstabulation results of the NLS Second Follow-Up. (Tabular results appear in Appendix B.) The thirteen categories chosen for study replicate those used in a previous analysis (Purcell, et al, 1976) of Army representation. In addition, results are presented from crosstabulations on the Gilbert Youth Survey-USAREC tape merge made by the Manpower Research and Data Analysis Center (MARDAC). (A description of the Gilbert-USAREC data base appears in Appendix A.)

Quality (Figures 3.2 and 3.3)

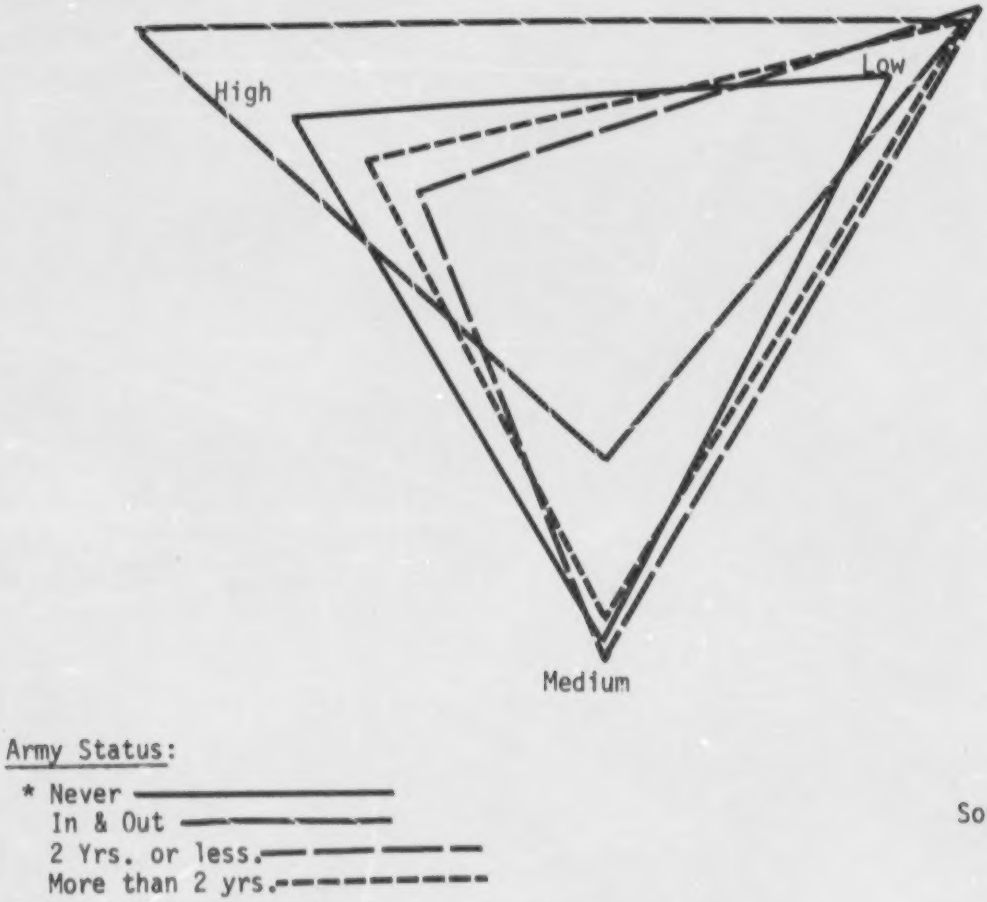
Since the NLS Base Year survey was administered in the spring of 1972 to high school seniors, it is assumed that most, if not all, respondents are high school graduates. The comparison of quality levels, therefore, concentrates on the measures of Aptitude (Figure 3.2) and Literacy Level (Figure 3.3). The procedures for computing these composite measures of quality are explained in Appendix A. The basic difference between the two measures is the exclusion of mathematical aptitude scores from the computation of Literacy Level.

Results show no significant difference in Army representation at the middle levels of both literacy and aptitude--except for underrepresentation among the "In and Out" group on medium aptitude scores. The "In and Out" group differences here may be attributable to the much larger overrepresentation in the high aptitude category. Both of the other groups of Army entrants exhibit a similar pattern: overrepresentation in the low levels and underrepresentation in the high levels.

It is interesting to note that the "2 Yrs. or Less" group is generally more divergent from the civilian standard than the "More than 2 Yrs." group--especially in aptitude scores. These greater differences in aptitude scores--because of the manner in which the composites were computed--may be taken as showing a greater differential in mathematical

Figure 3.2

Aptitude:
High, Medium, Low

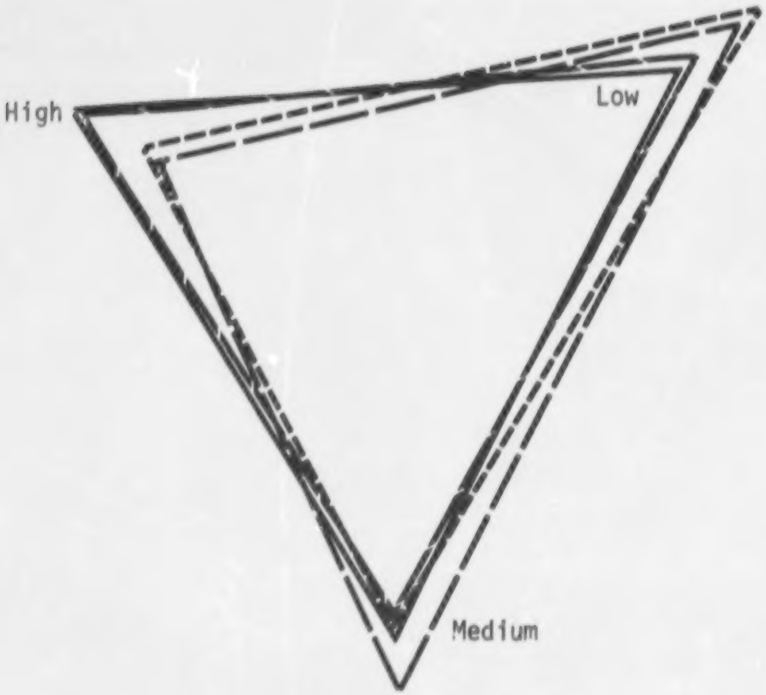


* Never drawn as standard for comparison

Source: NLS

Figure 3.3

Literacy Level:
High, Medium, Low



Army Status:

- * Never ————————
- In & Out ‒ ‒ ‒ ‒ ‒ ‒
- 2 Years or less —— —— ——
- More than 2 years - - - - - - -

Source: NLS

*Never drawn as standard for comparison

ability (as opposed to the combination of literacy scores) from the civilian standard of non-entrants.

Race (Figure 3.4)

The patterns of racial representation for all groups of Army entrants are similar--with the exception of the "other" subcategory, where there is a significant difference only in the non-representation of "other" races among "In and Outs." Army entrants are overrepresentative of Blacks (especially among "In and Outs"), and, to a lesser degree, underrepresentative of Whites. The "2 Yrs. or Less" group is the closest of all Army entrants in all subcategories of race to the civilian standard; however, no separate group of Army entrants is closer to the civilian standard than it is to one of the other Army groups.

Socio-Economic Status (Figure 3.5)

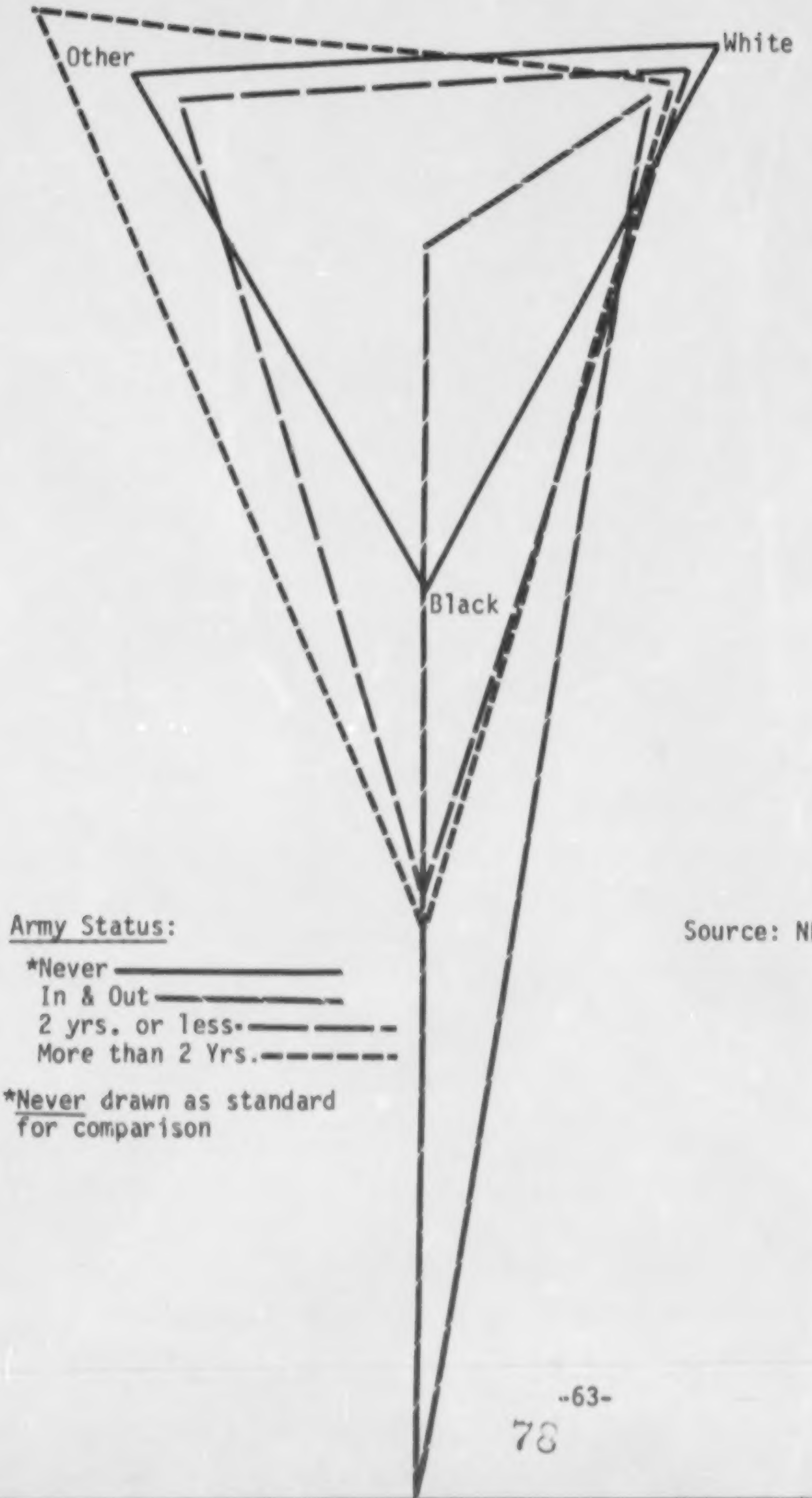
The "More than 2 Yrs." group of Army entrants is closest in representation to the general population--especially at the medium SES level. Generally, Army entrants from the high school graduating class of 1972 appear to be overrepresentative at the lower SES levels and underrepresentative at both the medium and high levels. The only break in this pattern is the slightly overrepresentative number (though not significant) of "In and Outs" in the high SES category.

Region (Figure 3.6)

With the exception of "In and Outs"--who are very unrepresentative of the civilian standard in all regions but the North East--Army entrants are not too divergent in regional origin from their civilian counterparts. The area of greatest relative divergence (excluding consideration of the smaller group of "In and Outs") appears to be *under*representation of individuals from the North East.

Figure 3.4

Race:
White, Black, Other

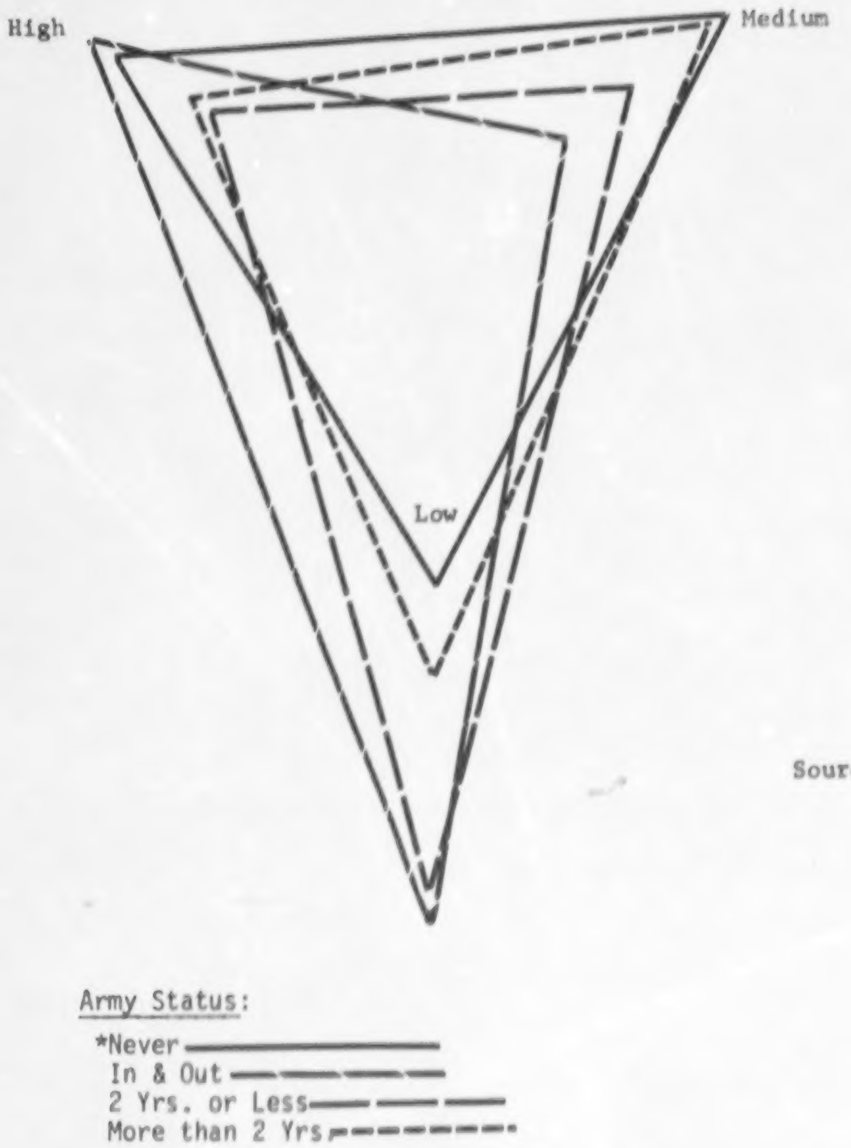


*Never drawn as standard for comparison

Source: NLS

Figure 3.5

Socio-Economic Status:
High, Medium, Low

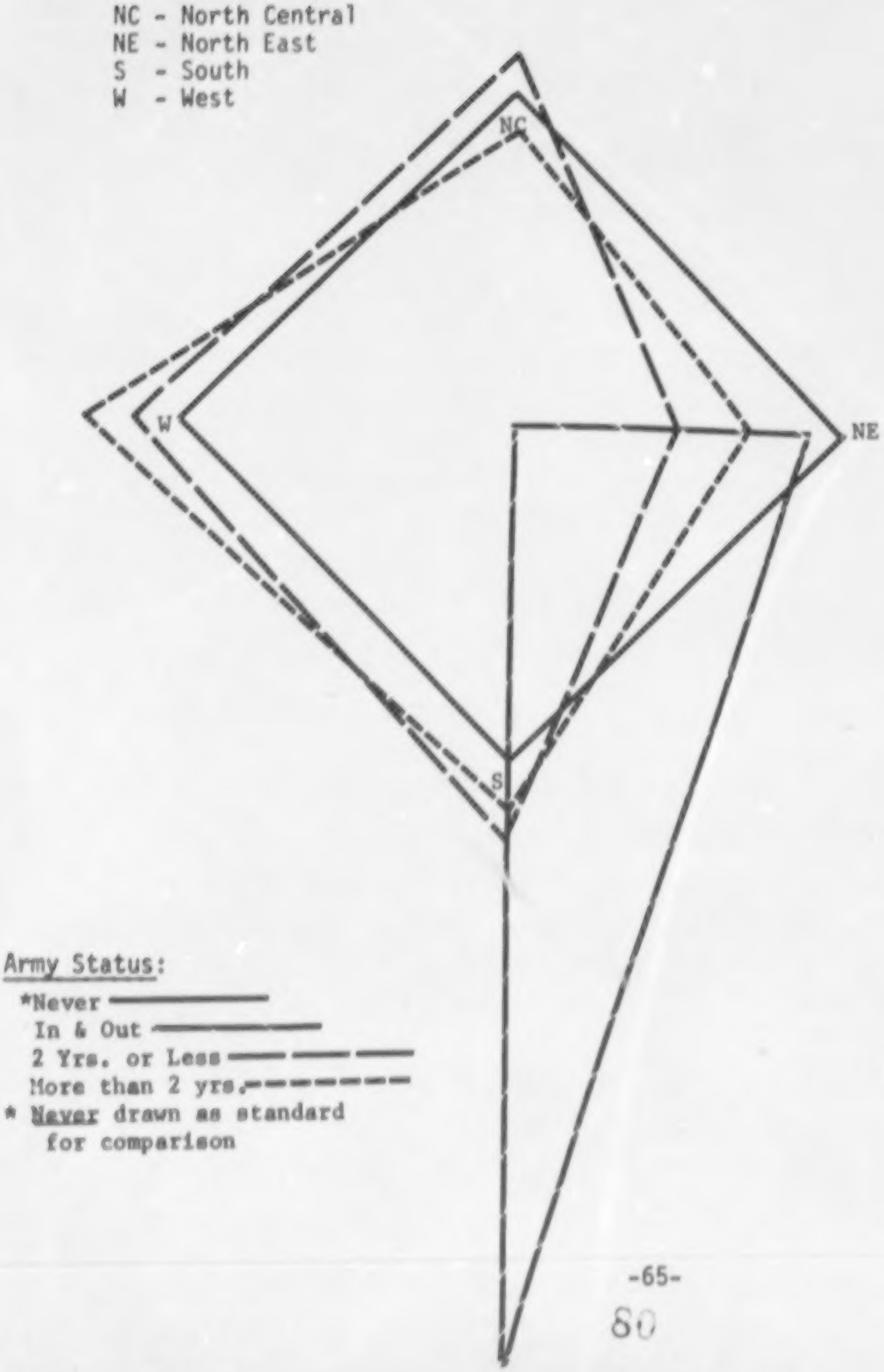


Source: NLS

*Never drawn as standard for comparison

Figure 3.6

Region



Source: NLS

Father's Occupation (Figure 3.7)

As a group, the "In and Outs" are greatly divergent from their civilian counterparts, composed entirely of only two occupational categories. The patterns of divergence for the other two groups of Army entrants, however, are very similar--suggesting that these groups are quite homogeneous in this particular category of social representation. The greatest differences occur in overrepresentation of Military occupations, followed by the underrepresentation of Professional/Managerial/Technical occupations.

Parents' Income (Figure 3.8)

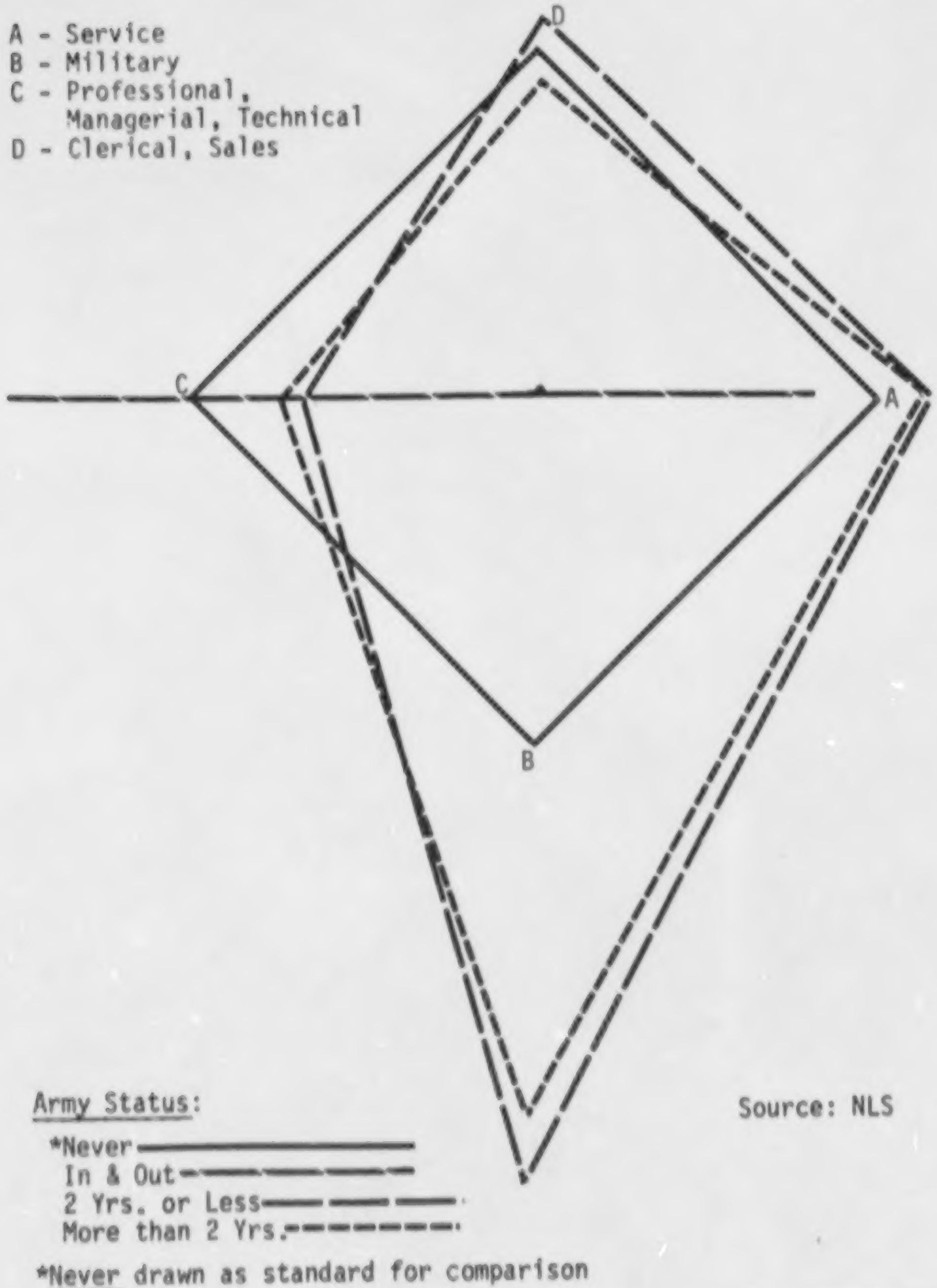
Once again, the "In and Out" group of Army entrants shows the greatest divergence from the civilian standard, being totally underrepresentative at the highest level of parents' income. Discounting this smaller group of entrants, individuals who entered the Army from the high school class of 1972 appear to fit into a homogeneous pattern of representation: overrepresentative of low-income families, close at the medium-to-lower-medium levels, and underrepresentative at the highest levels. It should be noted, however, that the only significant difference for the "More than 2 Yrs." group occurred at the less-than $9,000 income level.

High School Activities (Figure 3.9)

The "More than 2 Yrs" and "2 Yrs. or Less" groups of Army entrants appear similar with respect to participation in high school activities. In only two high school activities--i.e., Athletics and Hobby Clubs--are these Army entrants overrepresentative. It would appear that, as a group, Army entrants were slightly less active in extracurricular activities and less representative of diversification than their high school classmates. Underrepresentative differences appear greatest in the area of Honorary Clubs. The "In and Out" group is once again *characteristically extreme* in areas of divergence from the civilian standard.

Figure 3.7

Father's Occupation

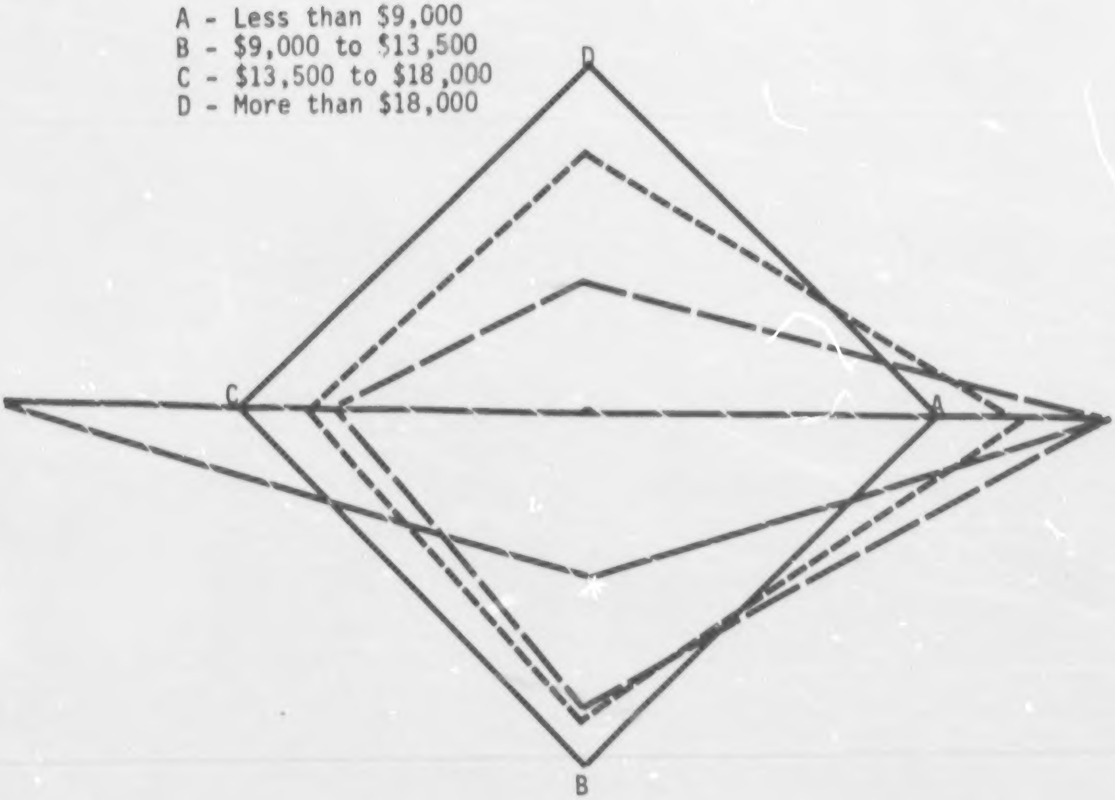


Source: NLS

*Never drawn as standard for comparison

Figure 3.8

Parents' Income



Army Status:

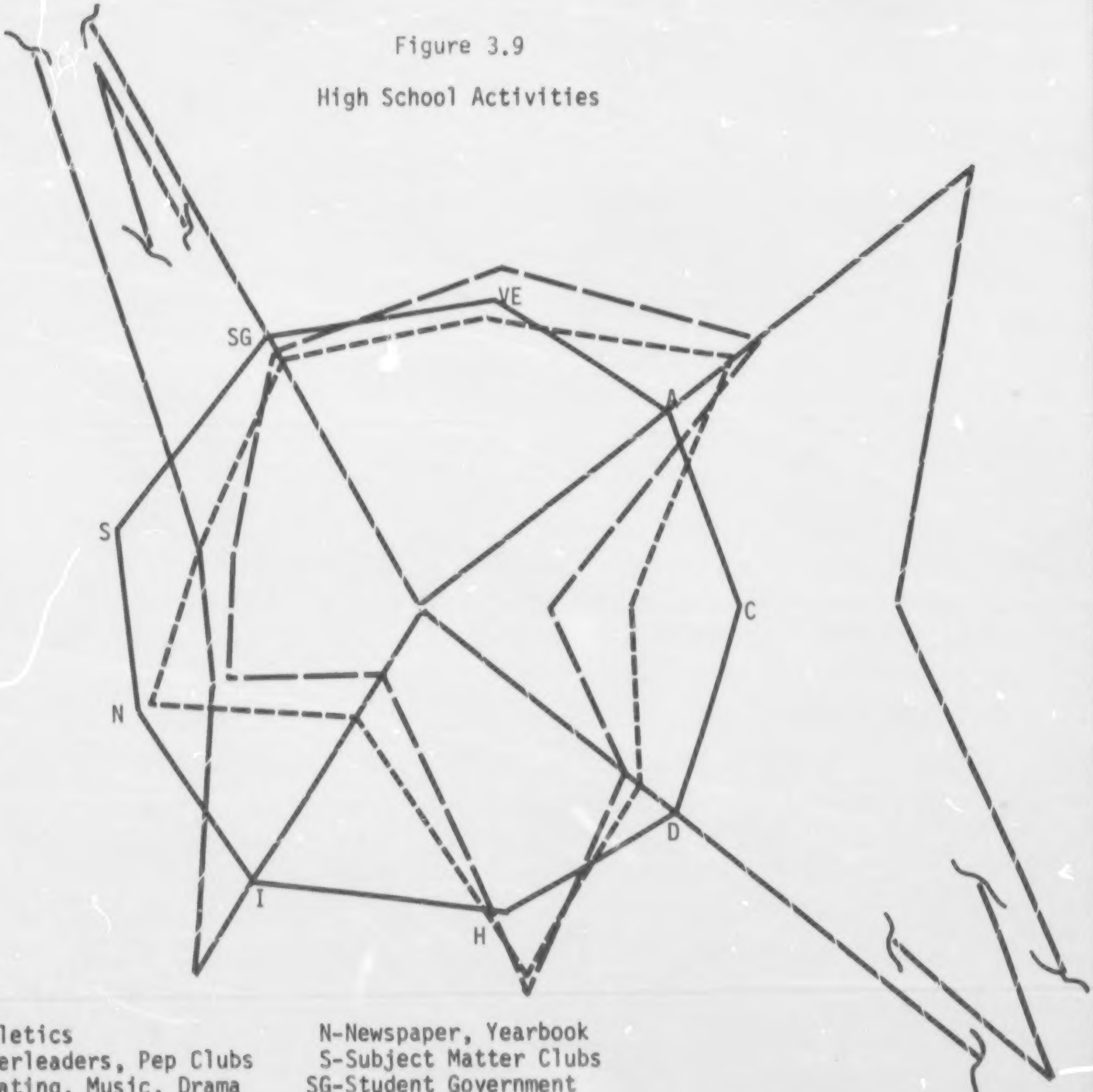
- * Never ————
- In & Out — — — —
- 2 Yrs. or less — — - —
- More than 2 yrs. - - - - - -

*Never drawn as standard for comparison.

Source: NLS

Figure 3.9

High School Activities



A-Athletics
C-Cheerleaders, Pep Clubs
D-Debating, Music, Drama
H-Hobby Clubs

N-Newspaper, Yearbook
S-Subject Matter Clubs
SG-Student Government
VE-Vocational Education
I-Honorary Clubs

Source: NLS

Army Status:

*Never ————————
In and Out ——— ——— ———
2 yrs. or less —— —— —— ——
More than 2 yrs. – – – – – – – – –
* Never drawn as standard for comparison.

Important Goals in Life (Figure 3.10)

The responses of Army entrants on "Important Goals in Life" are noticeably different in several areas. For example, the "More than 2 Yrs." group is overrepresentative in placing importance on goals for every variable in which a significant difference appears--i.e., all variables except "money," "living close to relatives," and "leisure time." The "2 Yrs. or Less" group is likewise overrepresentative or not significantly different in attributing importance to all but one "goal in life": "living close to relatives." The "In and Out" group does not follow this pattern, however. "In and Outs" appear highly overrepresentative under "living close to relatives" and moderately overrepresentative under four categories--while very *under*representative of both the civilian standard and the majority of Army entrants in all other selections. The responses of Army entrants on "Important Goals in Life" are treated in greater depth in the section on "Attitudes and Attitude Changes." Nevertheless, it would appear from these data that, as a total group, Army entrants place *un*representatively high importance on personal, family, and community values.

Important Factors in Selecting a Job or Career (Figure 3.11)

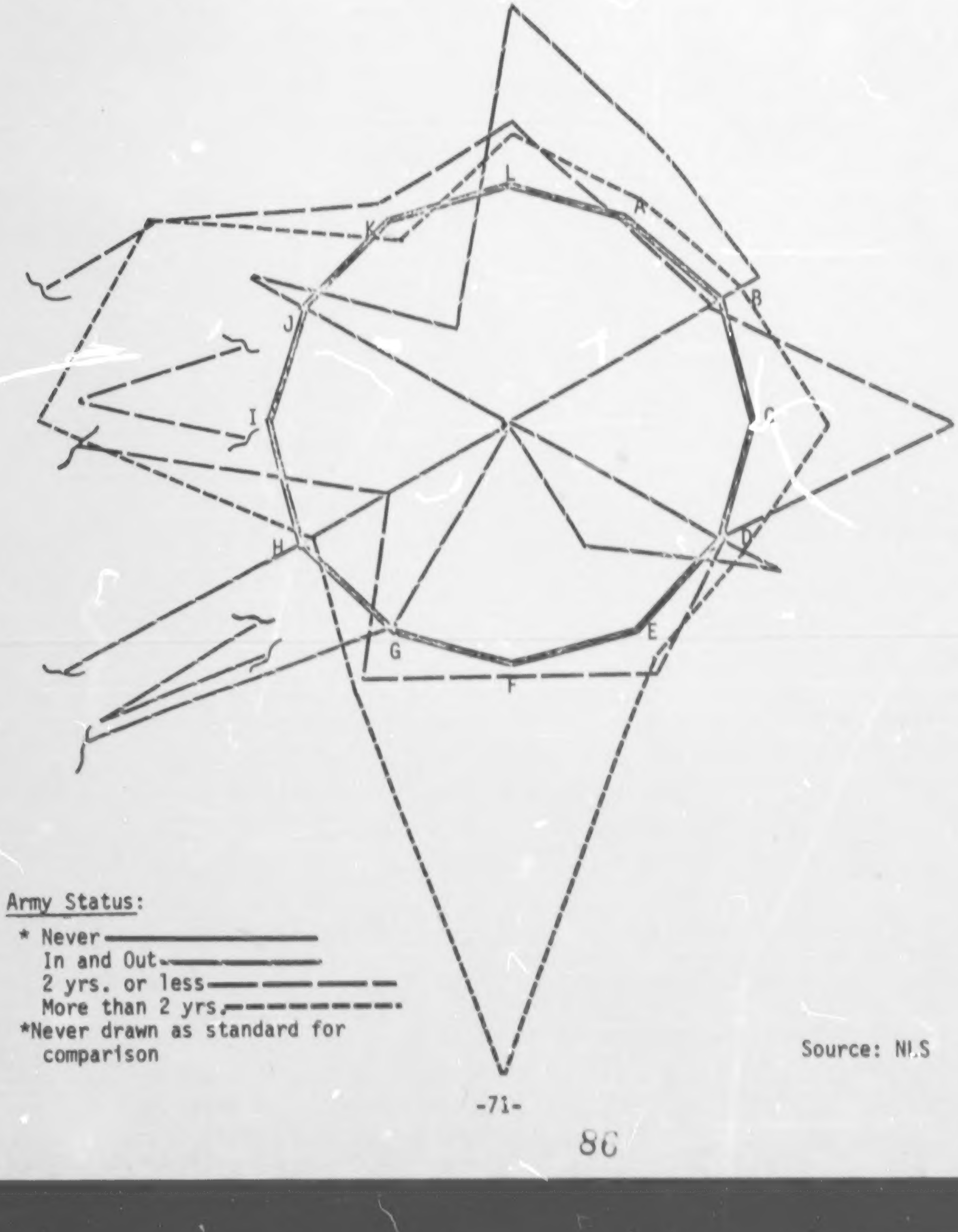
Important Factors in Determining Life's Work (Figure 3.23)

The "2 Yrs. or Less" and "More than 2 Yrs." groups of Army entrants do not appear as similar in attributing importance to "Job or Career Factors" as they do in their responses to questions on "Life's Work." Although a greater number of significant differences appear for the "2 Yrs. or Less" group on "Job Factors," the range of divergence from the civilian standard on particular questions is usually smaller than that of the "More than 2 Yrs." group. This is especially true for importance attributed to "Money," "Chance to be a Leader," and "Position That Is Looked up to by Others." Overall, these two groups of Army entrants do not seem to

Figure 3.10

Important Goals in Life

A-Success
B-Good Marriage
C-Money
D-Friends
E-Stead Work
F-Being Community Leader
G-Better Opportunity for Children
H-Living Close to Relatives
I-Getting Away from this Area
J-Correcting Social Injustices
K-Leisure Time
L-Good Education



Source: NLS

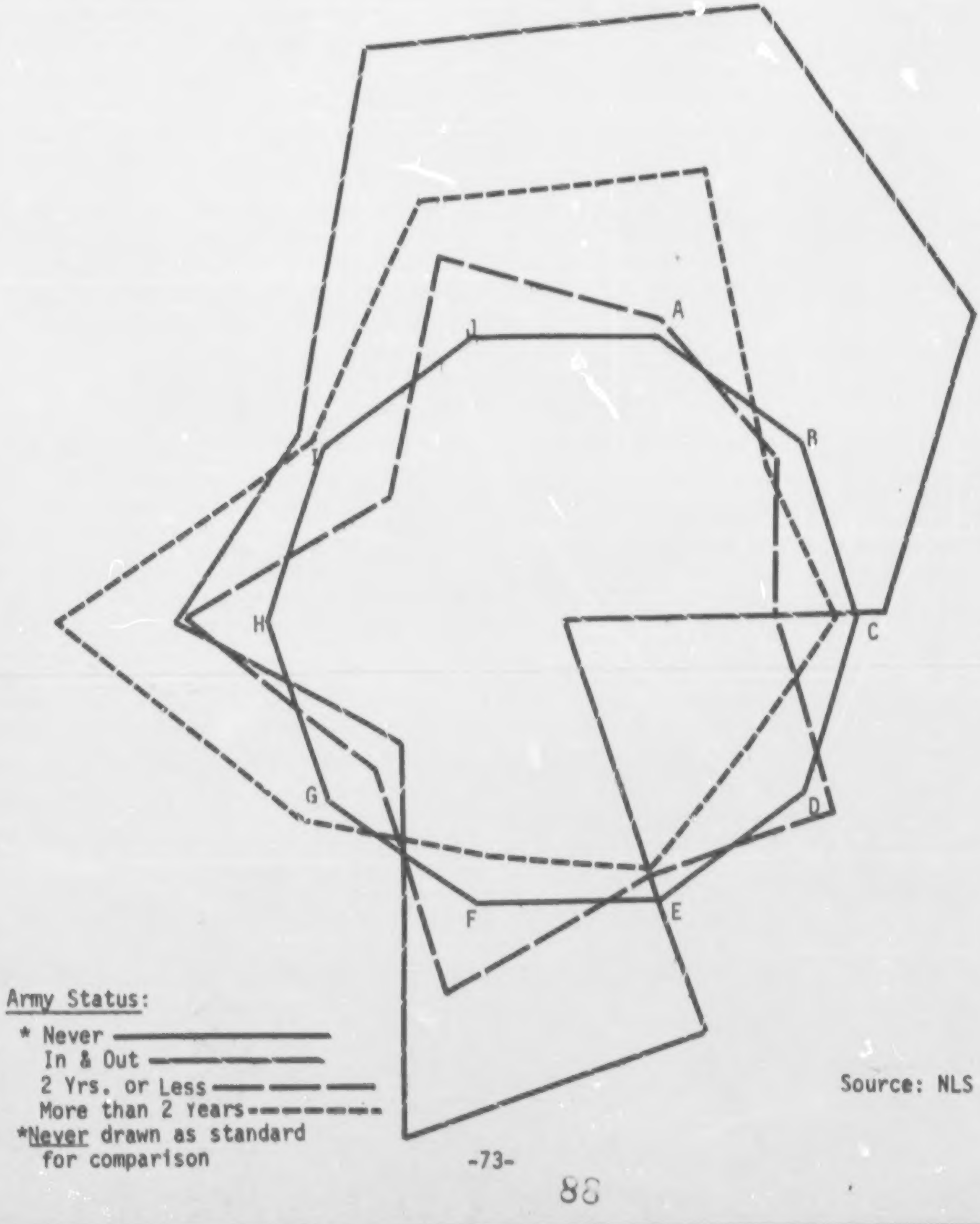
follow any pattern on "Job Factors"--other than, perhaps, an overrepresentative propensity (i.e., ambition) for measures of personal success (i.e., "Money," "Chance to be a Leader," and "Position That is Looked up to by Others").

It is interesting to note that in attributing importance to "Life's Work Factors," the "2 Yrs. or Less" and "More than 2 Yrs." groups are characteristically overrepresentative for every factor except "Available for Openings" (where there is no significant difference) and "Previous Experience" (where the "More than 2 Yrs." group is underrepresentative). The greatest areas of divergence on "Life's Work Factors" appear to occur in overrepresentative importance placed on "Work Matches Hobby," "Good Income," and "Opportunity for Promotion." It is also interesting to observe that in only two instances do significant differences occur for both groups on "Life's Work Factors"--i.e., "Good Income" and "Opportunity for Promotion"--once again, two materialistic measures of success and personal ambition.

The "In and Out" group of Army entrants appears to be a mixture of extremes. This group shows greatest divergence in also being overrepresentative on material/personal factors: "Money," "Position Looked up to by Others," and "Freedom from Supervision" in "Job Factors", and "Good Income" in "Life's Work Factors." However, the "In and Out" group also places overrepresentative importance on such factors as "Opportunity for Creativity," "Working in World of Ideas"--factors which are usually associated with a higher level of personal values (e.g., self-actualization or growth needs as opposed to financial security and recognition needs). And, oddly, the "In and Out" group is greatly underrepresentative in placing importance on every "Life's Work Factor" except "Good Income."

Figure 3.11
Important Factors in Selecting a Job or Career

A-Money
B-Opportunities to be Original and Creative
C-Opportunity to be Useful in Society
D-Avoiding High-Pressure Job
E-Living and Working in World of Ideas
F-Freedom from Supervision
G-Opportunity for Steady Progress
H-Chance to be a Leader
I-Working with People Rather than Ideas
J-Position That is Looked up to by Others



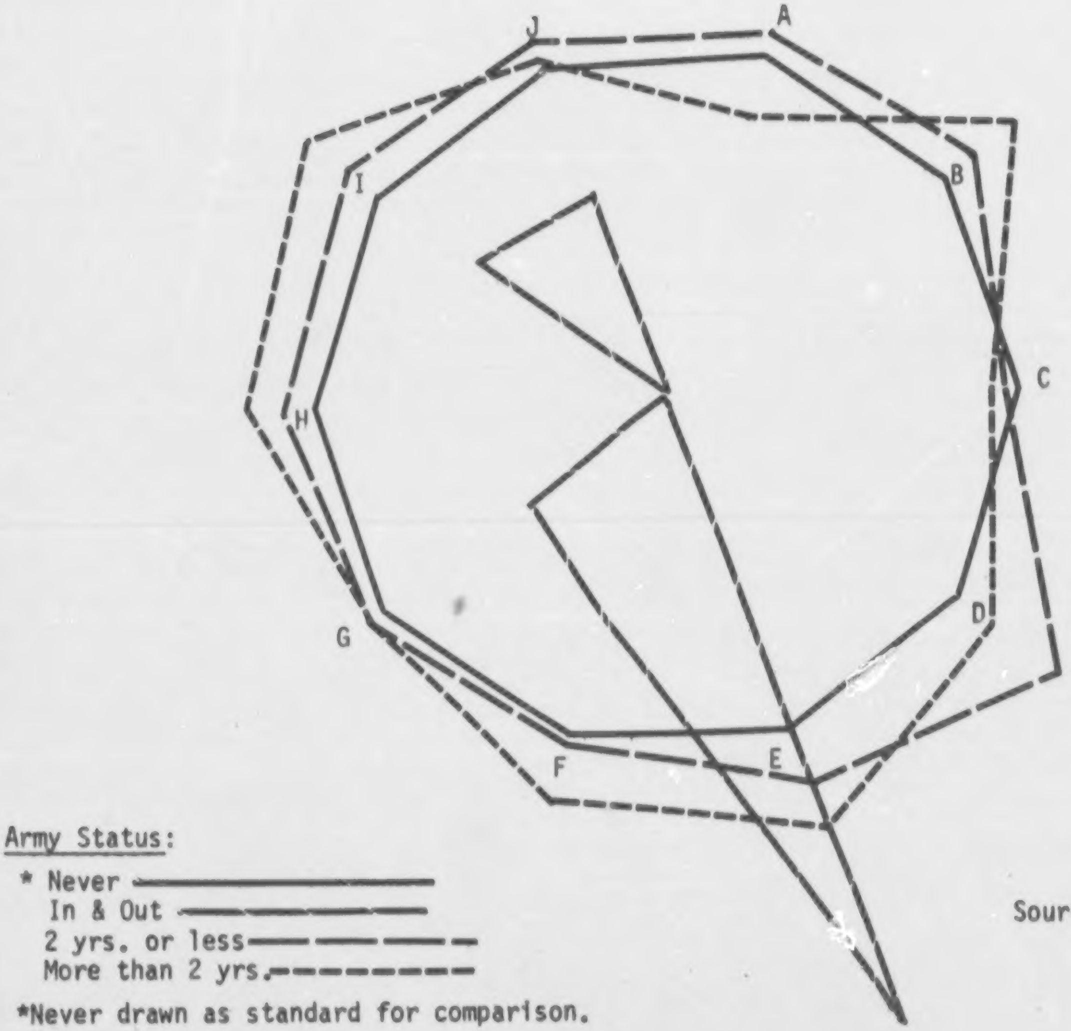
Source: NLS

Figure 3.12

Important Factors in Determining Life's Work

A-Previous Experience
B-Relative or Friend in Same Work
C-Available for openings
D-Work Matches Hobby
E-Good Income

F-Job Security
G-Interesting Important Work
H-Freedom to Make Decisions
I-Opportunity for Promotion
J-Working with Friendly People



Source: NLS

*Never drawn as standard for comparison.

Job Satisfaction (Figure 3.13)

Measures of job satisfaction appear lower overall for Army entrants than non-entrants. In fact, with the exception of "Opportunity for Promotion with this Employer" (for the "More than 2 Yrs." group) and "Supervisor" (for the "In and Out" group) all significant differences on measures of job satisfaction are underrepresentatively low for Army entrants. The greatest divergence occurs on "Working Conditions"--with "Supervisor" to a lesser degree. From the results of these data, it would also appear that most of the "In and Out" group respondents for some reason did not complete this question.

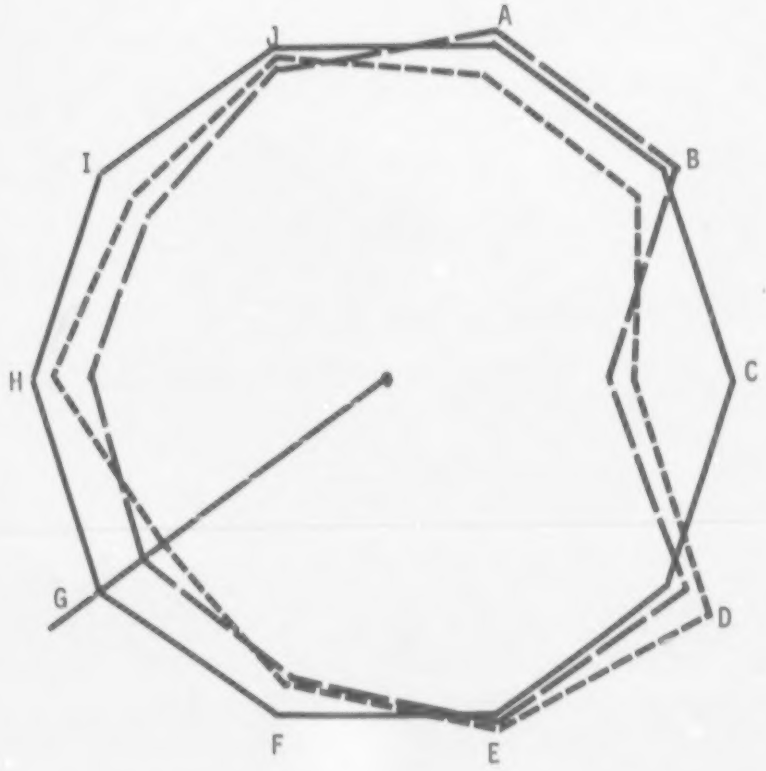
Self Appraisal (Figure 3.14)

Self Appraisal is treated in greater detail in the section on "Attitudes and Attitude Changes." It should be noted, however, that the results of these data show no significant difference on any measure of self appraisal for both the "2 Yrs. or Less" and "More than 2 Yrs." groups of Army respondents. Generally, these two groups appear close to their civilian counterparts in measures of Self Appraisal--with a tendency toward overrepresentation in self-esteem and underrepresentation in appraising personal control over circumstances and environment. The "In and Out" group is very overrepresentative in showing low sense of control over the environment. For example, the greatest divergence from the civilian standard for this group occurs in "Everytime I try to get ahead something stops me" and "Planning only makes one unhappy, plans never work out." These responses are understandable--considering the fact that a good number of individuals with "early outs" (usually a result of non-compatibility with Army requirements) probably comprise this group. However, there is no indication of resignation from continuing to improve the locus of control--as shown in the zero responses to "Good luck is more important than hard work" and "People who accept their condition in

Figure 3.13

Job Satisfaction

A-Pay and Fringe Benefits
B-Importance and Interest of Work
C-Working Conditions
D-Opportunity for Promotion with this Employer
E-Opportunity for Advancement in this Line of Work
F-Opportunity to use past training
G-Supervisor
H-Opportunity for Developing New Skills
I-Work as a Whole
J-Respect Received from Others



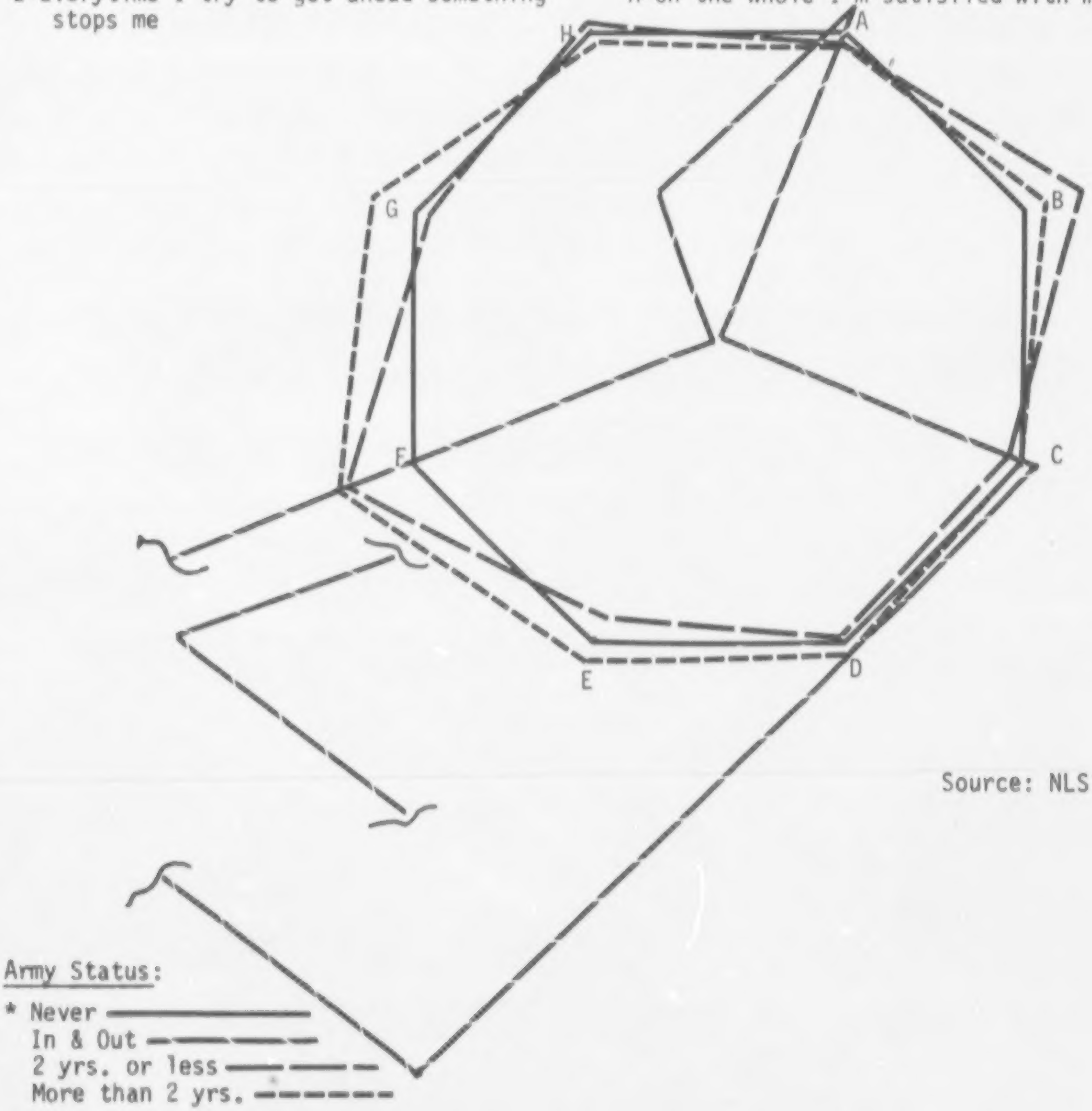
Army Status:

*Never ————————
In & Out —·—·—·—
2 yrs or less — — — — —
More than 2 years ------
*Never drawn as standard for comparison

Source: NLS

Self Appraisal

A-I take a positive attitude toward myself
B-Good luck is more important than hard work
C-I feel I am a person of worth
D-I am able to do things as well as others
E-Everytime I try to get ahead something stops me
F-Planning only makes one unhappy, plans never work out
G-People who accept their condition in life are happier
H-On the whole I'm satisfied with myself



Source: NLS

Army Status:

* Never ————
In & Out — — —
2 yrs. or less — — —
More than 2 yrs. - - - - -

*Never drawn as standard for comparison.

life are happier." Other than the very noticeable (and low) exception of responses to "On the whole I am satisfied with myself," this group has no particularly unrepresentative measure of self-concept.

Gilbert Youth Survey-USAREC Tape Merge (Figures 3.15 through 3.18)

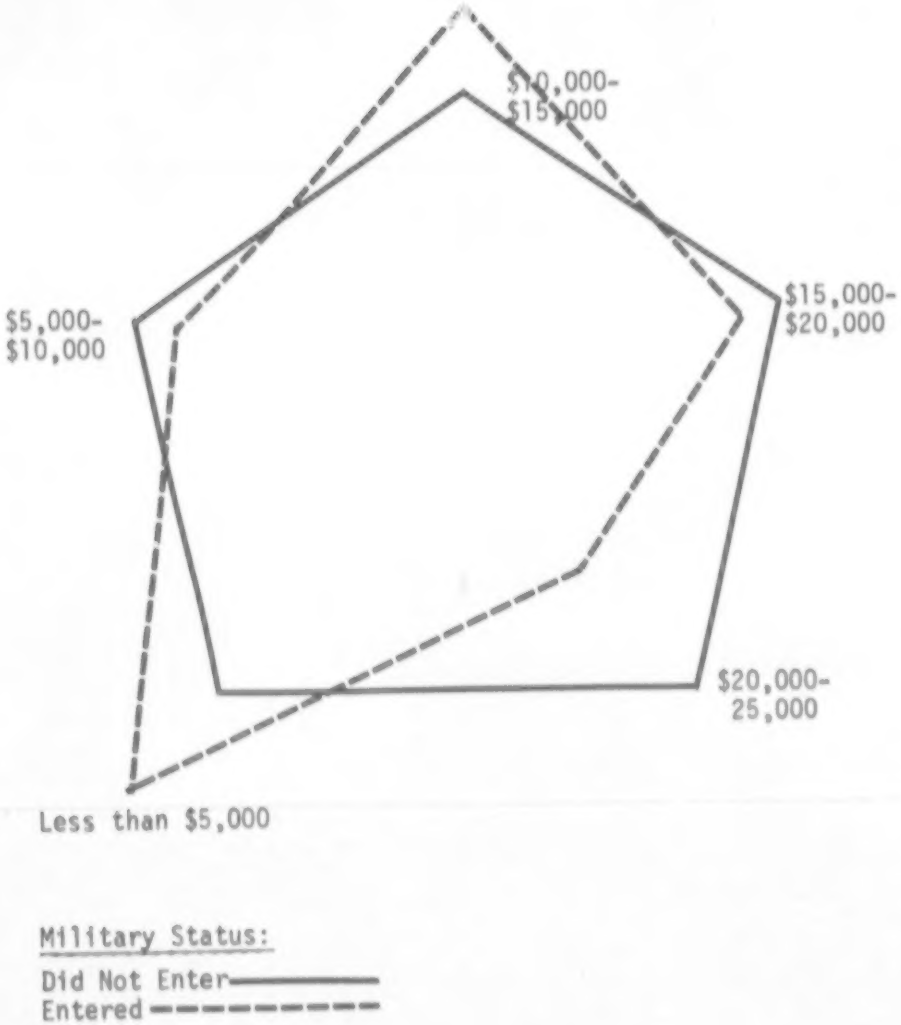
Although the Gilbert-USAREC merge data presented here does not allow comparisons to be made on the basis of non-entry/entry into the Army, the data do provide a means for comparing the representativeness of high school graduates from the class of 1972 with the broader group of *military* entrants. The civilian standard used here is those non-entrants into military service, ages 17 to 29 years, who appeared in the May 1974 Gilbert Youth Survey. (A further description of this data base appears in Appendix A.)

The Gilbert-USAREC snowflake diagram of Parents' Income (Figure 3.15) is generally similar to that of the NLS. For example--although it depicts a different grouping of income levels--it appears to show overrepresentation at the lowest levels and underrepresentation at the highest levels. However, while the NLS data show no significant difference for the majority of Army entrants in the middle ranges, Gilbert-USAREC data actually show overrepresentation at the $10-15,000 level. Comparisons of income are complicated here by the difference in time (i.e., 1972 vs. 1974, and its effect upon income) as well as the definition of categories. Nevertheless, the pattern of entry at the highest and lowest family income levels appears to remain constant.

The Gilbert-USAREC snowflake diagram of Race (Figure 3.16) also parallels that of the NLS--though, for some reason, the proportion of "other" races among military entrants in the Gilbert-USAREC data appears far more overrepresentative than it does in the NLS. This may be attributable, in part, to the greater heterogeneity of the Gilbert Youth Survey sample.

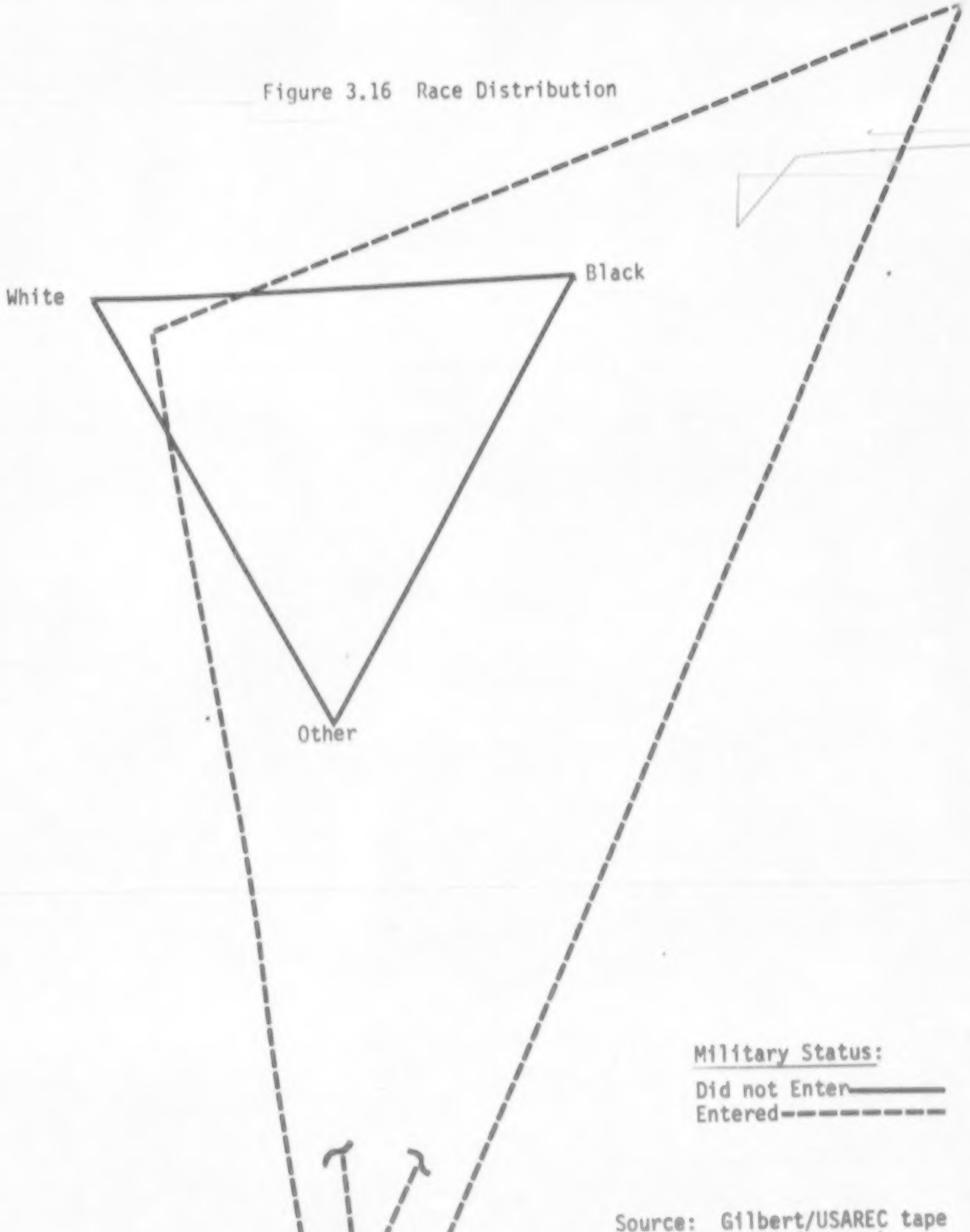
There are no comparison data from the NLS for Figures 3.17 and 3.18. These data are presented here to serve as another source of

Figure 3.15 Parents' Income



Source: Gilbert-USAREC tape merge (MARDAC)

Figure 3.16 Race Distribution

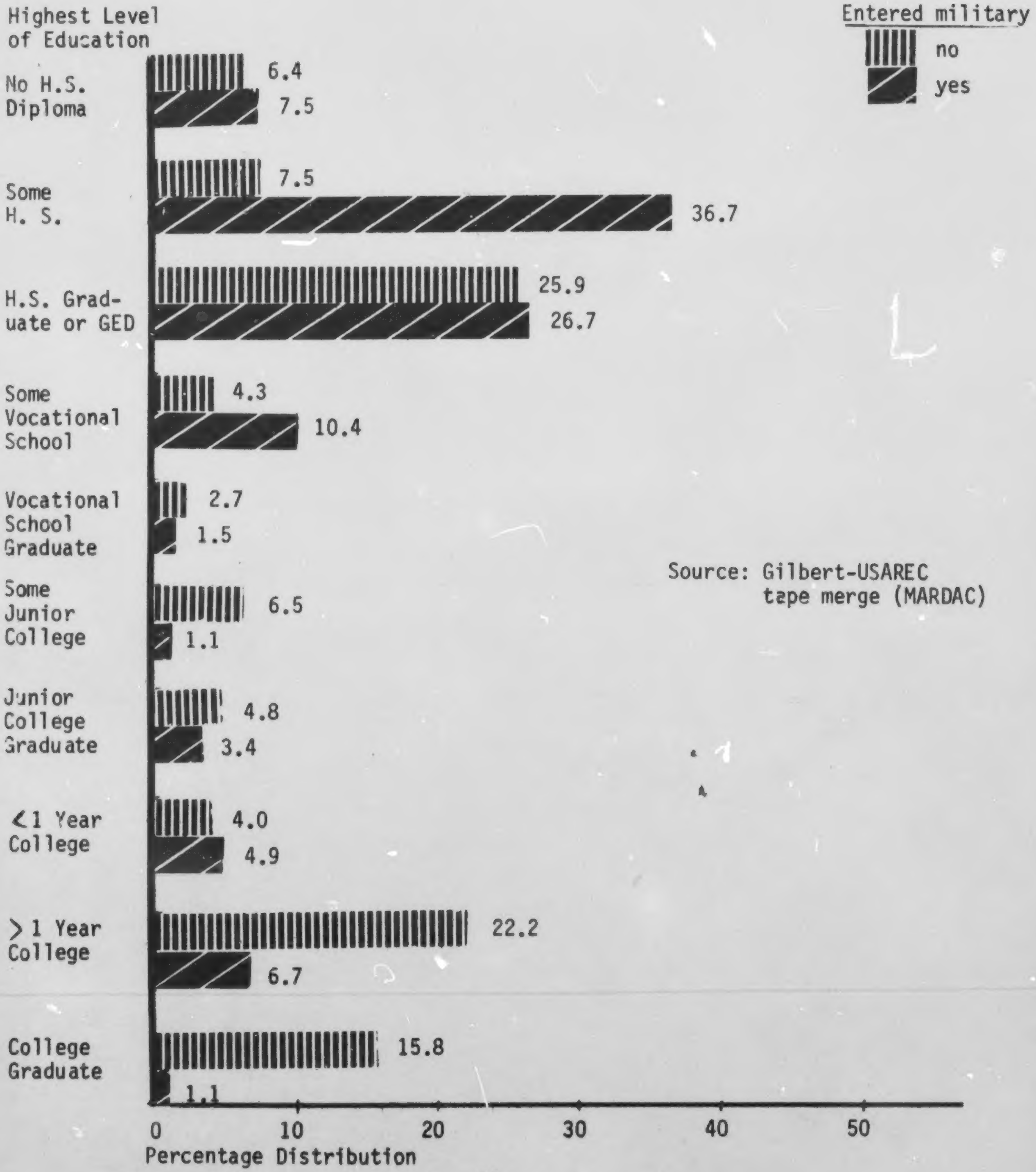


Source: Gilbert/USAREC tape merge (MARDAC) information on the representative configuration of military entrants in the volunteer environment. The Comparison of Percentage Distribution by Educational Level (Figure 3.17), for example, also appears relatively similar to the results of the section on "Demographic Evaluation" (cf. Tables 3.7 and 3.9). Military entrants here are overrepresentative of high school graduates and underrepresentative of individuals with college training. The only questionable result on the Gilbert-USAREC data is the category of "Some H.S."--a somewhat ambiguous reference in itself (when compared with the categories of "No H.S. Diploma" or even "H.S. graduate or GED").

The Comparison of Expected Salary First Year Out of School (Figure 3.18) is especially interesting. Military entrants are overrepresentatively high at the lower salary ranges, relatively representative at the middle ranges, and very underrepresentative at salary ranges greater than $8499. These differences may be attributable to several possible factors: the understanding of "expected salary" by military entrants to be cash value (i.e., *military* salary cash value), excluding benefits; the fact that "current salaries" (if working) were included, and military entrants are unrepresentative at the higher age levels; or, some combination of the above along with, possibly, lower self-esteem or lower general expectations of career progression after school. Another possible reason may be the fact that "school" for military entrants is high school--while "school" for a good number of non military entrants may be college. Regardless of the reason, the suggestion that military entrants (before enlistment) expect to earn less than non-entrants might be one indicator of perceived employability (or, rather, *un*employability) in the general job market.

Figure 3.17

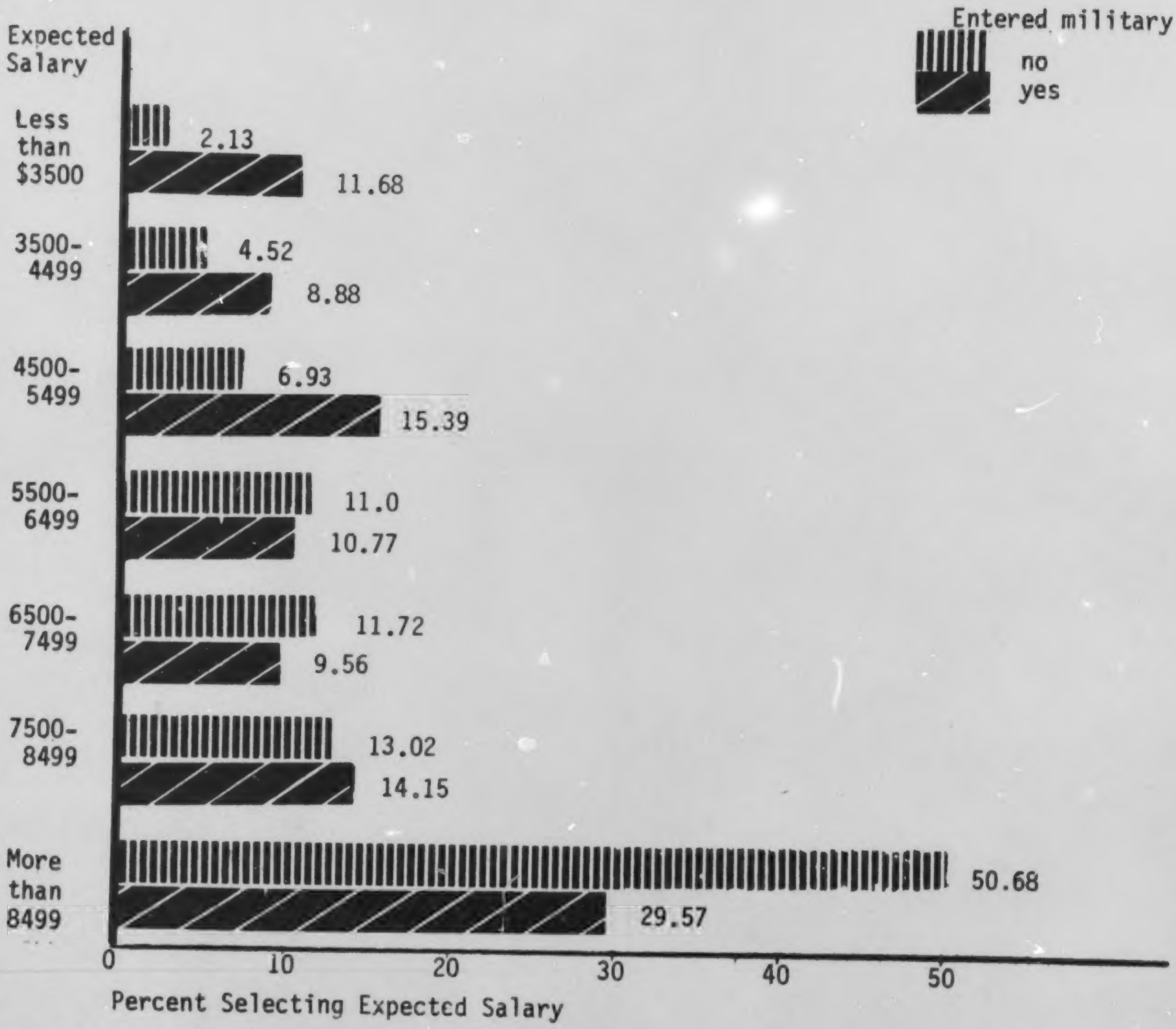
Comparison of Percentage Distribution
by Educational Level



Source: Gilbert-USAREC
tape merge (MARDAC)

Figure 3.18

Comparison of Expected Salary First Year Out of School (If Working, Current Salary)



Source: Gilbert-USAREC tape merge (MARDAC)

Conclusion

One advantage in using snowflake diagrams to depict representational relationships is the visual ease it provides for determining relative differences. The snowflake diagrams used in this analysis of the NLS Second Follow-Up are also in many ways similar to the conceptual model of representation (Figure 2.1) presented in Section 2. The "civilian" polygon in the snowflake diagrams--like the triangle of perfect representation in the conceptual model--is the standard for comparison. And, with a similar understanding of *realistic* representational goals, a zone of *approximate representation*--determined by policy objectives--may be constructed around the standard polygon.

In conceptualizing representational goals as approximate (rather than perfect) conformity with the civilian standard, the NLS group of Army entrants does not appear to be radically different from its civilian counterpart (with the notable exception of the smaller group of "In and Outs," which will be separately discussed). A review of the snowflake diagrams shows, for example, only the following measures of Army representation to be beyond approximate limits (established as .5 inches from the standard polygon): overrepresentation of low aptitude and underrepresentation of high aptitude individuals; overrepresentation of Blacks and corresponding underrepresentation of Whites: overrepresentation of low SES and slight underrepresentation of medium SES individuals; underrepresentation of people from the North East, and proportionately less overrepresentation in the South; overrepresentation of military (father's occupation) offspring; overrepresentation of individuals from the lowest income families,and proportionately less underrepresentation of the highest income families; underrepresentation of students who participated in subject-matter, honorary, and pep clubs in high school; overrepresentation of students who participated in athletics in high school; moderate overrepresentation of individuals with strong ambitions to satisfy personal, family, and community needs; and overrepresentation of individuals who express dissatisfaction with their working conditions. Another composite view of representational differences may be obtained in Appendix B--where a comparison is made between the tabular results of the *total* group of Army entrants and non-entrants from the NLS Second Follow-Up.

A major purpose in replicating the analytical methods of the pilot study (Purcell, et. al., 1976) was to facilitate the identification of *patterns* of Army representation. A comparison of results from the present analysis with those of the pilot study reveals no great shifts in representation. However, if any pattern of enlistment can be identified from an evaluation of NLS data over time, it is generally toward *increased representation*. For example, among the high school graduating class of 1972, the following changes in Army representation appear to have occurred over time: (1) slightly decreased differences between Army entrants and non-entrants in literacy and aptitude levels; (2) no noticeable changes in racial representation; (3) increased representation at the extremes of socioeconomic status (i.e., decreased overrepresentation of low SES and decreased underrepresentation of high SES); (4) a shifting toward increased regional representation (with the exception of the North East, where differences appear to have actually increased slightly); (5) slightly increased representation for parents' income; (6) increased representation for participation in high school athletics (and corresponding increase in the number of Army entrants who participated in high school extracurricular activities); (7) a noticeable shift in overrepresentation on "Important Goals in Life" (i.e., increased attribution of importance by Army entrants regarding goals in life); (8) a slight shift toward increased representation on "Important Factors in Selecting a Job or Career;" (9) a shift in overrepresentation on "Important Factors in Selecting Life's Work" (i.e., increased attribution of importance by Army entrants regarding factors in life's work); (10) no relative change in differences for most measures of job satisfaction, but a slightly greater increase in overall satisfaction among non-entrants; and (11) increased representation on "Self-Appraisal."

In almost every measure of representational differences, it is the "In and Out" group of Army entrants which shows the greatest divergence from the civilian standard. The "In and Out" group is small and there is no apparent way to determine the reasons why individuals in this group are, in fact, "Out." However, a comparison with the results of the pilot study (which separated Army entrants on the basis of original enlistment intentions) shows that "In and Outs" resemble most those individuals who planned to enlist after high school and did actually enlist soon after graduation.

Since the "In and Out" group is so divergent--and, evidently, much more homogeneous than any other Army or civilian group--it is possible to profile the "average" "In and Out" entrant. The "In and Outer" is: (1) representative in literacy level, but very overrepresentative in high aptitude and overrepresentative in low aptitude; (2) usually White (2 out of 3) or Black (1 out of 3); (3) mainly from the South (3 out of 4), and sometimes from the North East (1 out of 4); (4) usually from a low SES family (1 out of 2), with family income under $9,000 (1 out of 2) or under $13,500 (3 out of 4); (5) the offspring of a father working at a professional, managerial, technical, or service occupation; (6) athletic; (7) success oriented, but also seeks self-actualization; (8) self-positive; and (9) dissatisfied with his/her most recent employment.

It should be noted that there are several indications of low response rates (or skipped questions) by the "In and Out" group. This is especially true on attitude questions. Consequently, the above profile should only be interpreted as a *suggestive* description of the average "In and Outer."

Replication of the analytical methods of the pilot study has also placed certain limitations on the use of NLS evaluative evidence. For example, the present analysis departs from most Defense-oriented studies of representation (which usually concentrate on age-eligible males) by including in the Army and civilian groupings the *entire* NLS population of both men and women. The obvious difficulty presented here in making comparisons is the fact that the great majority of Army entrants are male, while the civilian standard population is more or less evenly divided between men and women. Regardless of these limitations, there are advantages in defining the civilian standard for comparison as including women. Since the Women's Army Corps no longer exists as a separate division of service--and there is every reason to believe that equal opportunity will continue to pervade Army policy decisions--representational comparisons which include women are likely to be the norm in future Defense analyses. This understanding is further evidenced by the fact that the Defense Manpower Commission (1976) included women in its study of representational policy, while strongly advocating the "optimum utilization of women" in both the recruitment and assignment of personnel.

In any case, when the total population of Army entrants from the NLS sample is compared exclusively with its male counterpart in the civilian population, only the following changes in representation appear: (1) slightly increased overrepresentation of Blacks; (2) slightly increased underrepresentation of parents' income at levels of $18,000 and above; (3) a shift from underrepresentation to overrepresentation in "Cheerleading and Pep Clubs" under "High School Activities"--a shift toward *very close* representation in "Athletics," "Debating," "Hobby Clubs," "Yearbook," "Subject Matter Clubs," and "Student Government"--also, increased representation in "Honorary Clubs" and increased overrepresentation in "Vocational Education"; (4) slightly increased representation in some "Goals in Life" responses (i.e., "Money," "Steady Work," and "Community Leader"); (5) increased representation in several "Important Factors in Selecting a Job or Career" (i.e., "Money," "Useful in Society," "Chance to be a Leader," and "Position That is Looked up to by Others"); (6) increased representation in two "Important Factors in Selecting Life's Work" (i.e., "Good Income," and "Opportunity for Promotion"); and (7) slightly increased overall representation in"Self-Appraisal"(since the NLS data apparently show males in the high school graduating class of 1972 to be slightly higher than females in measures of self-esteem).

A much more critical limitation of the NLS data base is the fact that it includes only those individuals who were in high school during the spring of their senior year--thereby eliminating high school "drop-outs" from the sample of Army entrants. The reverse side to this apparent data restraint is the understanding that Army recruitment policy is geared to enlist *as many high school graduates as possible*--and, that this NLS data base is therefore an indication of the representational enlistment patterns of the *target market*.

In order to further explore the overall nature of Army representation--and, likewise, compare the results of the NLS data analysis with those of the much more broadly composed demographic evaluation--several "Indices of Representation" were constructed. The following section should not only synthesize available information into a framework for policy analysis, but also provide a means for evaluating the differences between the several data bases on Army representation.

3.3 Indices of Representation

Two indices of Army representation were constructed in order to provide a framework for comparative analysis. The first index uses data from several sources and serves a two-fold purpose. First, it depicts the relationship between Army-reported statistics and census information, and the relationship between three NLS/Army enlistee groups and their civilian counterparts. In addition to intra-group comparisons, these indices are used to evaluate changes over time and to cross-validate the various available sources of information on Army representation.

The second index uses only NLS data. This index was designed to evaluate the statistical distribution of the Army enlistee population and the attributable degree of random selection, as reported in the NLS.

Comparative Distribution Index

The representation indices first used by the Army to measure achievements in the Affirmative Action Plan were used as a guide in the construction of this index. To calculate the index, Army enlistees (grades E-1 through E-4, as reported in DoD and Army sources) were compared to the civilian male population, ages 17 through 22 years (as reported by DoD and Bureau of the Census). Using NLS data, a second comparative distribution index was constructed, breaking Army enlistees down by years-in-service and comparing them to their civilian age-eligible counterparts. The results are shown in Figures 3.19 through 3.22

This index of representation was derived from the ratio of "actual" and "expected" numbers of enlistees, according to the characteristics of yearly family income (at time of entry), race, region, and aptitude. (These characteristics were selected on the basis of their frequent use as variables of representation and the availability of data.)

The following formula was used to compute representational distributions:

$$\text{Representation Index} = \left[\frac{\text{Actual Percent}}{\text{Expected Percent}}\right](100) - 100 = \text{Percentage Over or underrepresented}$$

where "actual percent" is equal to the percentage of Army enlistees and "expected percent" is equal to the percentage of civilians. For the NLS data, the "actual percent" is the percentage for either enlistee group (in-and-out, 2 yrs. or less, more than 2 yrs.) and the 'expected percent" is the percentage for the "never" (enlisted) group.

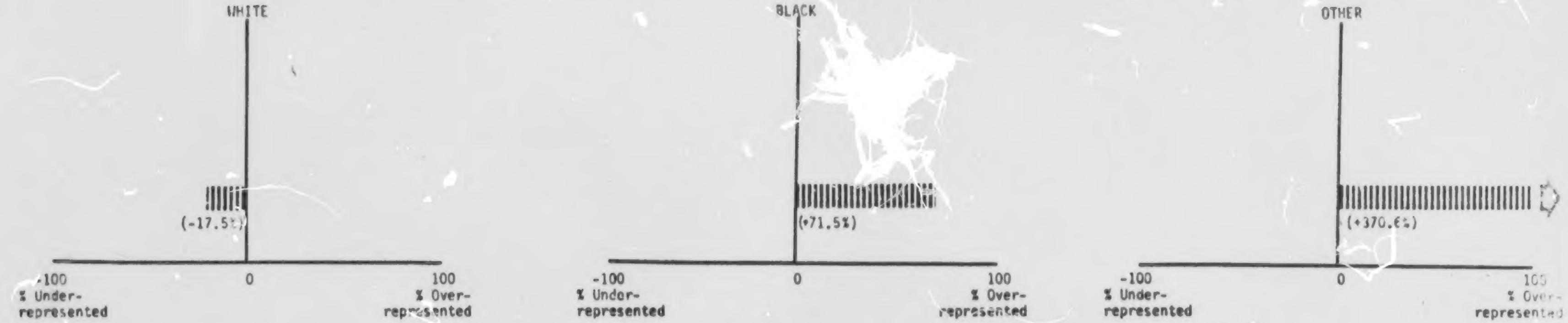
Using this formula, a zero calculation results when the actual percent and expected percent are equal. In this case, there is "no difference" between the Army enlistee group and its civilian counterpart. (This is recorded in Figures 3.19 through 3.22 as equal to the civilian standard of comparison, the vertical axis.) If the actual percent is greater than the expected percent, the result is a positive percentage (recorded as movement to the right of the vertical axis), and may be interpreted as *overrepresentative.* If the actual percent is less than the expected percent, the result is a negative percentage (recorded as movement to the left of the vertical axis), and may be interpreted as *underrepresentative.*

In no case does the representation index for any of the four characteristics presented here equal zero. A zero computation for any characteristic would be expected to be extremely unlikely. Generally, the closest *relative* measures for all component factors are those of regional distribution and yearly family income.

Although the interrelationship between the NLS aptitude and Army/Census mental category levels is difficult to define, there does appear to be some possible discrepancy between these two data sets in regard to aptitude. Otherwise, in eliminating the highly unrepresentative "In and Out" NLS group and some unusually divergent categories (e.g., the "other" racial cohort on the Race Distribution Index and the middle range of the Yearly Income Distribution Index), the NLS data set aligns very well with the Army/Census data.

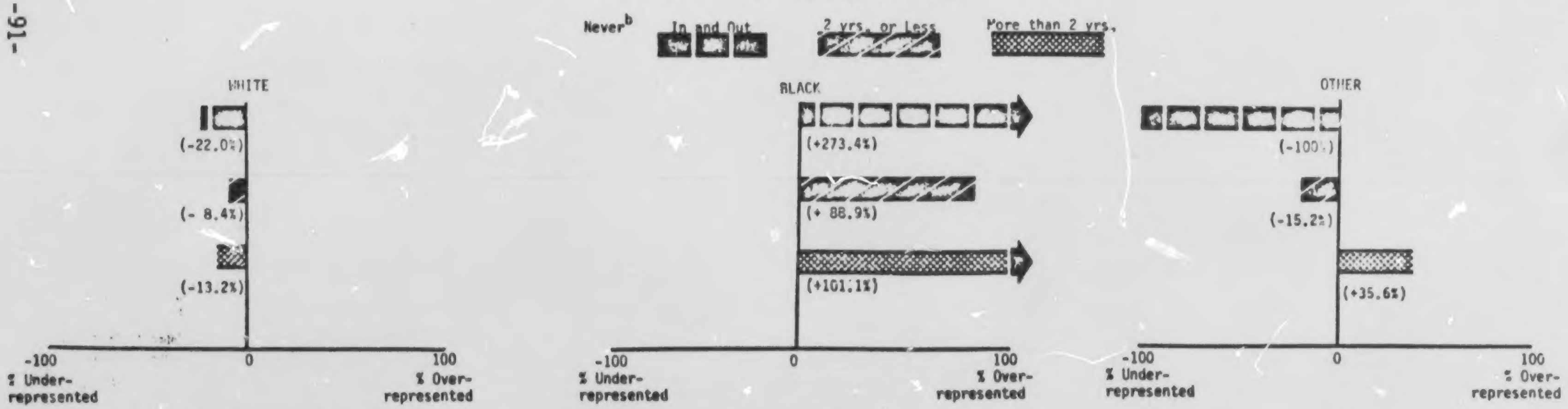
Figure 3.19

RACE DISTRIBUTION INDEX
CIVILIAN POPULATION[a] VS. ARMY ENLISTEES (E1-E4), JULY 1975



[a] Age-eligible civilian population drawn as standard for comparison (~0).
Sources: Current Population Reports, Series P-25, No. 614, July 1975 data and November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN).

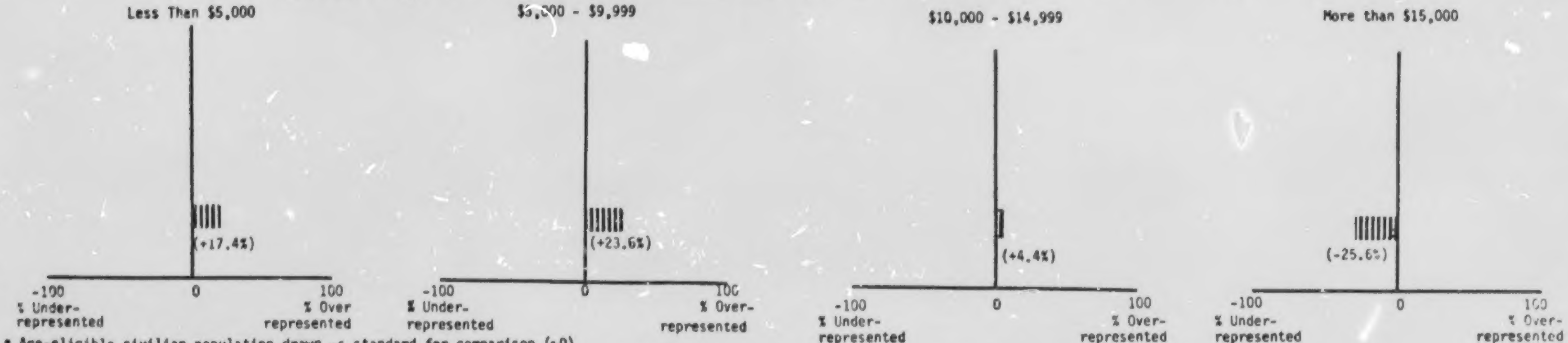
NLS ARMY ENLISTEE COMPARISON



[a] "NEVER" drawn as civilian standard for comparison (~0)
SOURCES: NLS

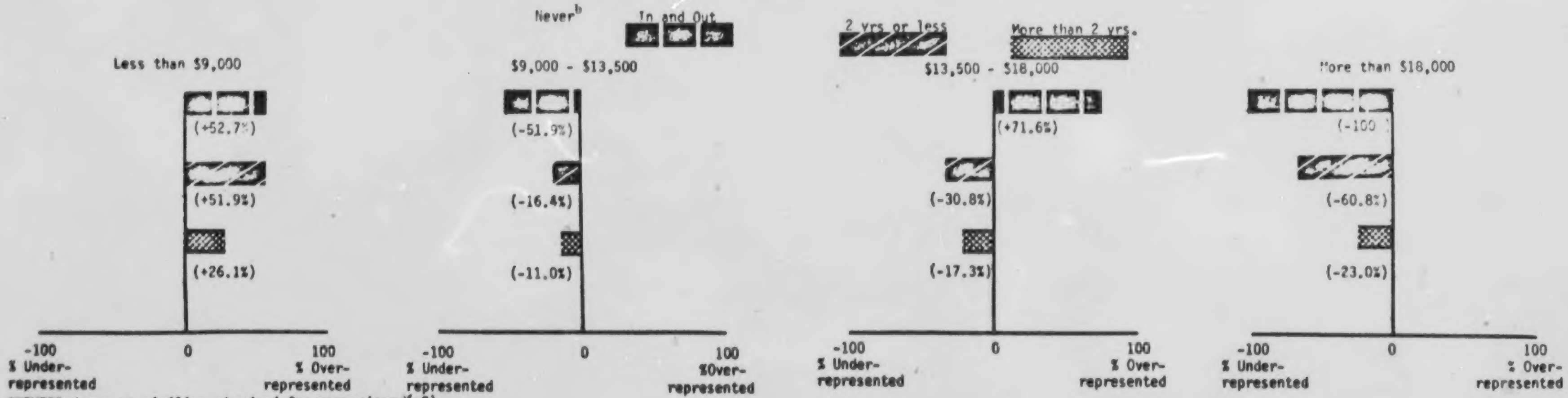
Figure 3.20

YEARLY FAMILY INCOME DISTRIBUTION INDEX
CIVILIAN POPULATION[a] VS. ARMY ENLISTEES (E1-E4) AT TIME OF ENTRY, 1973-1975



[a] Age-eligible civilian population drawn as standard for comparison (~0)
Sources: Current Population Reports, Series P-60, No. 101, 1974 and November 1975 Army Quarterly Survey, U.S. Army Military Personnel Center (MILPERCEN)

NLS ARMY ENLISTEE COMPARISON

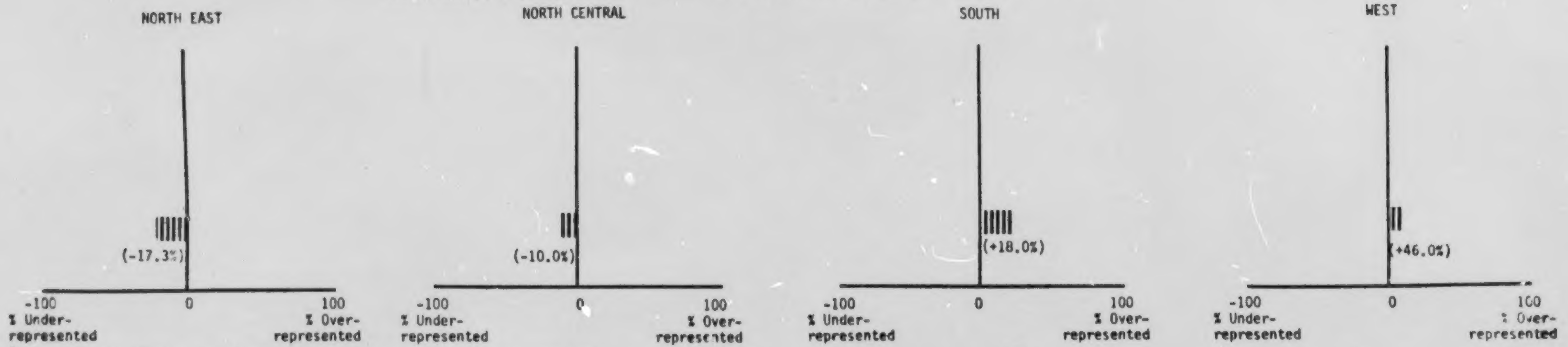


[b] "NEVER" drawn as civilian standard for comparison (~0)
Source: NLS

Figure 3.21

REGIONAL DISTRIBUTION INDEX

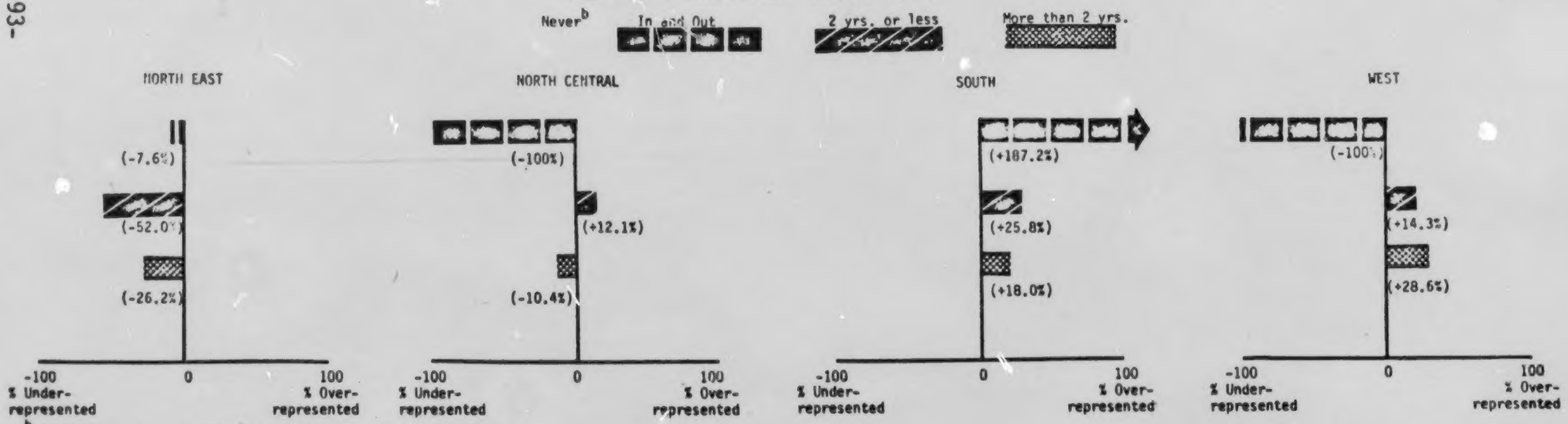
CIVILIAN POPULATION[a] VS. ARMY ENLISTEES (E1-E4), FY 1975



[a] Age-eligible Civilian Population Drawn as a Standard for Comparison (~0)

Source: *Population Representation in the All-Volunteer Force*, Suffa, OASD(M&RA)MPP, November 28, 1975.

NLS ARMY ENLISTEE COMPARISON



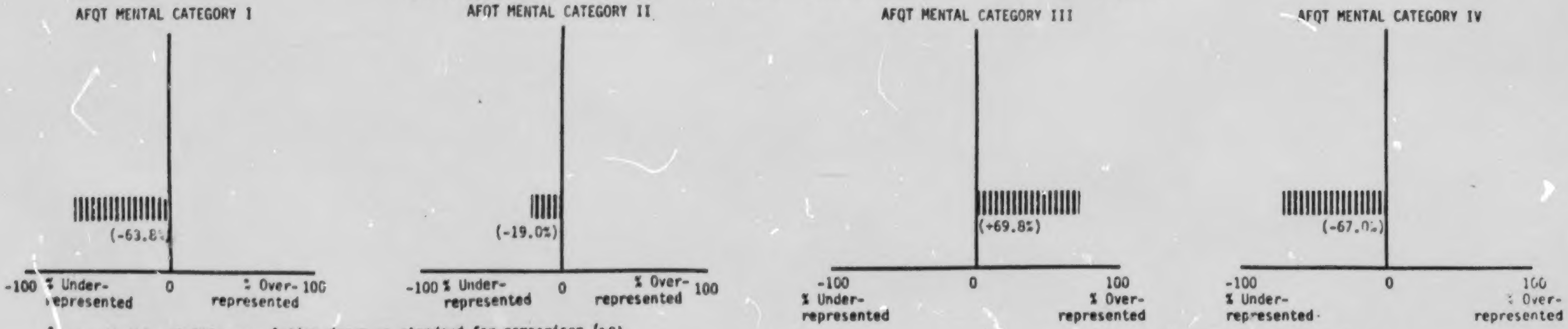
[b] "NEVER" drawn as civilian standard for comparison (~0)

Source: NLS

Figure 3.22

APTITUDE DISTRIBUTION INDEX

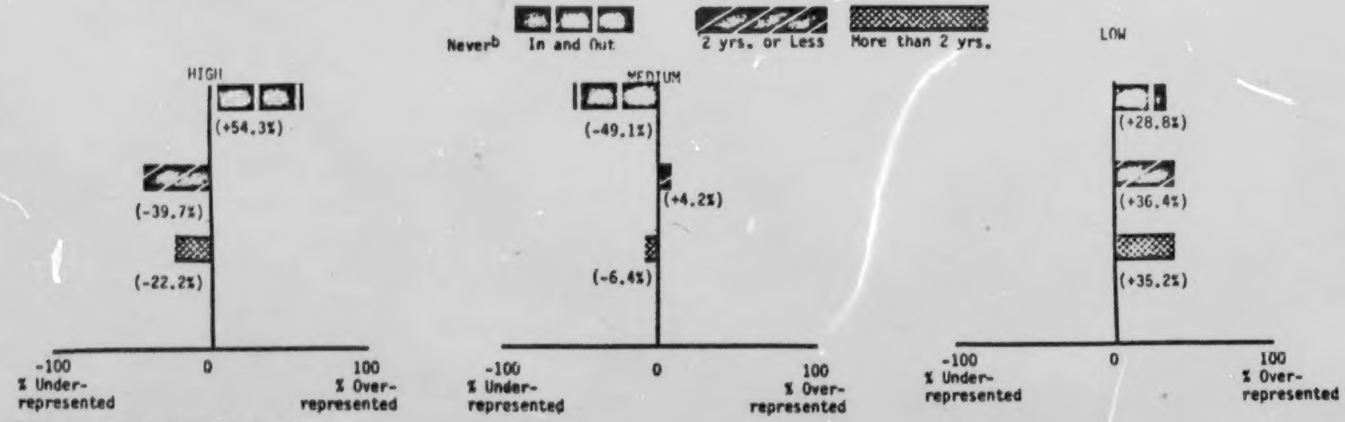
CIVILIAN POPULATION[a] VS. ARMY ENLISTEES, FY 1976 (3 QTRS.)



[a] Age-eligible civilian population drawn as standard for comparison (~0).

Sources: AFQT: Historical Data (1958-1972), Report MR76-1, MARDAC (Karpinos, 1976) and Male Army ACcessions, USAREC Report No. 08-16, (MARDAC, 1976).

NLS ARMY ENLISTEE COMPARISON



[b] "NEVER" drawn as civilian standard for comparison (~0)

Source: NLS

In most cases, it appears that the "More than 2 Yrs." NLS cohort is closer to the Army/Census representation indices--with the exception of race. However, in making comparisons, it is best to combine the NLS "2 Yrs. or Less" group with the "More than 2 Yrs." group, and determine the average--since both groups are of approximately equal strength. Discrepancies in the Yearly Family Income Distribution Index are also not as marked when comparisons are made based on equal income levels. The only real difference between the data sources appears to be in the $9,000-$13,000 (NLS) and $10,000-$14,999 (Army/Census) indices. A possible explanation for this might be an abundance of enlistees fitting into the $13,500-$14,999 level of yearly family income--thereby raising the Army/Census index to a positive percent, but not appearing as relatively strong in the higher income spread of the NLS. It is more likely, however, that middle-range differences are attributable to changing patterns of enlistment and/or inflationary adjustments. For example, the yearly family income of the NLS sample shows only reported income in 1972--while the Army/Census figures include reported family income at time-of-entry (for a more diverse group) over the years 1973 through 1975.

It should be pointed out that differences between these two data sets are *expected*. The Army/Census data includes a less homogeneous group of people, covering age ranges above and below those individuals in the NLS sample. Whereas the NLS depicts the enlistment patterns of one particular age-eligible, high school graduate sample, the Army/Census data include a much broader (all ages and levels of educational attainment during the specified period) configuration of Army enlistees. Differences between data set results may then also be interpreted as depicting the *dynamics of the system*. That is, where noticeable differences appear, one may infer that *changes* have *occurred over time*.

Where results appear to be somewhat *similar*, it is likely that enlistment patterns have remained static. It is somewhat surprising to find, therefore, that the NLS data set compares so favorably with the Army/Census data.

Generally, the comparative distribution indices--by the four characteristics depicted in Figures 3.19 through 3.22--may be summarized as follows:

Regional Distribution - moderate overrepresentation in the South and West; greater relative underrepresentation in the North Central and, especially, North East; shifting patterns toward increased representation in the North East and West.

Race Distribution - heavy overrepresentation of the Black population (with a shifting toward representation) and moderate-to-light underrepresentation of the White population. (The "other" category is too all-encompassing and difficult to interpret. Nevertheless, the Army/Census "other" group is *extremely* overrepresented and suggests further study.)

Yearly Family Income Distribution - moderate overrepresentation in the lower income levels; the suggestion of near representation in a middle income bracket; moderate underrepresentation in the higher income levels.

Aptitude Distribution- heavy underrepresentation in the highest aptitude categories; moderate underrepresentation in the high/above average category; apparently heavy overrepresentation in the low range (NLS figures do not compare well here, possibly a result of different standards for categorization and/or measurement. Also probably a result of different age-level enlistments. It is suggested that Army/Census data set be used as the more reliable and current reference.)

One final point worth noting is the difference between the index computations for the NLS "2 Yrs. or Less" and "More than 2 Yrs." groups. In most cases--as previously observed--the "2 Yrs. or Less" group shows a greater unrepresentative quality. These are enlistees who postponed entry into the Army at least 18 months after graduation from high school--sometimes referred to as "late arrivals" (as opposed to those who "arrive" soon after high school graduation). If recruitment policy should ever be directed at achieving representational goals, the differences among age-similar groups, as contrasted with age-of-entry, might be well worth investigating.

The Odds of Chance Selection

Under hypothetical conditions, a "representative" configuration of Army Personnel could be randomly selected. The mechanism for making this random selection could, if equally applied, be a draft lottery. Indeed, a major argument offered by proponents of the draft during the All-Volunteer Force debates concerned this aspect of *Selective* Service. The point has been made that the draft did not, in fact, provide a truly representative *carbon copy* of the national population. It could also be argued that *exact* duplication is not a realistic goal, and probably not even possible under democratic government. Yet, inherent to the reasoning of representational objectives is the assumption that some form of random selection is at least possible according to a specific set of population characteristics.

This index was designed to evaluate the distribution of NLS Army enlistees and determine the odds that these enlistees represent a chance selection of civilians. By computing the proportion within an Army sample who have a given characteristic, measurement of the odds that the NLS Army sample could have been a *chance selection* (under volunteer conditions) from society (according to specific characteristics or component factors) may be computed. In so doing, it is understood that the larger the difference between the Army sample and the population, the greater the odds against mere chance fluctuations.

The odds against each noted characteristic serve as a common denominator for comparing the several characteristics among each other. Thus, these odds may be taken to serve as an *index* of representativeness. This index was calculated for thirteen NLS variables and is presented in Table 3.20.

The computation of odds for the Index of Chance Selection is an application of the elementary principle of statistics that proportions are distributed according to a normal curve. To read probabilities and their corresponding odds from a standard normal curve, the Z - score is used:

$$Z = \frac{P_s - P}{\sqrt{\frac{PCI-P}{n}}}$$

where P_s = the sample's proportion
P = the population's proportion
n = the sample number

There is certainly no suggestion here that the odds index provides a fully satisfactory overview of the issues of representation. A more desirable portrayal would be an encompassing theory or model of representation which would lend itself to improved policy and planning. A dynamic model which could provide the necessary systems perspective does not yet exist. In spite of the lack of a comprehensive model for interpreting representational data, some general observations regarding the results of Table 3.20 are offered.

In comparison with their peers, Army enlistees who entered soon after high school graduation (more than 2 yrs. service) have *more pronounced differences in attitudes* than in aptitude areas or demographic characteristics. Attitudes over time also appear even more pronounced than inherited traits,though still "statistically significant." These sharp differences in personal attitudes,because of their more "favorable" location, could be interpreted as showing Army enlistees to be not *un*representative, but "better" than representative--that is, more interested in improving their family situation, more interested in advancement, more interested in working with people, and generally holding higher self-esteem.

The value-laden interpretation of "better" or "worse", however, is a soft area, and not overwhelmingly favorable to the Army. For

Table 3.20

Ranking Thirteen Characteristics According to Differences Found Between Army Entrants and Their Peers

	In the Army More Than Two Years[a]					In the Army Less Than Two Years[a]				
Characteristics	Sub-Category[b]	Peers Sub-Category %	Army % - Peers %	as a Z-Score (stand. errors)	Odds vs. Being by Chance	Sub-Category[b]	Peers Sub-Category %	Army % - Peers %	as a Z-Score (stand. errors)	Odds vs. Being by Chance
1. Job satisfaction	Security	27.9	+20.3	+6.11	3 Billion :1	Working Conditions	25.5	-21.9	-6.74	Trillion: 1
2. Important Life Goal	Oppty. for Children	59.2	+17.9	+4.91	2 Million :1	Oppty. for Children	59.2	+15.4	+4.20	75000:1
3. Race	White	85.1	-11.2	-4.24	75000:1	Black	9.0	+ 8.0	+1.19	8:1
4. Important Job Factor	Work with People	36.0	+15.0	+4.22	75000:1	Money	28.5	- 5.5	-1.63	18:1
5. Self Appraisal	Positive Self Appr.	34.5	+14.4	+4.09	48000:1	Positive Self Appr.	34.5	+18.9	+1.08	6:1
6. Important Life Work Factor	Freedom Make Decisions	57.7	+12.2	+3.33	2500:1	Friendly People	58.1	+16.0	+4.35	117000:1
7. Aptitude	Low	26.1	+ 9.2	+2.83	434:1	High	28.0	-11.1	-3.32	2000:1
8. Literacy Level	Low	32.2	+ 9.7	+2.80	384:1	High	43.3	-11.7	-3.17	1250:1
9. Parents' Income	Below 9,000	37.3	+ 9.6	+2.68	269:1	Below 9,000	37.3	+19.2	+5.33	17000000:1
10. Father's Occupation	Technical	38.0	- 8.9	-2.47	146:1	Technical	38.0	-11.0	-3.04	832:1
11. Socio-Economic Status	Low	25.1	+ 7.3	+2.27	85:1	Low	25.1	+22.4	+6.93	Trillion:1
12. Region of the Country	NE	25.2	- 6.6	-2.05	49:1	NE	25.2	-13.1	-4.05	32000:1
13. HS Activities	Yearbook	14.8	+ 4.7	+1.79	26:1	Subject Clubs	20.5	- 4.5	-1.50	14:1

[a] Rankings are ordered by the more-than-two-year group, with their larger differences first.

[b] The subcategory having the largest difference was selected. (For all subcategories, refer to the analysis of NLS Second Follow-Up Results in Section 3.)

example, while Army enlistees have conspicuously higher self-esteem, their differences in job-appraisal generally suggest that the Army system--e.g., supervisors and working conditions--remains less attractive than in civilian job counterparts. Note also that the "better" interest in family conditions could be related to the special benefit supports which are available (at real expense) from the Army to enlistee dependents. Regardless of subjective criteria, it may be said that these measures indicate a "healthy" set of attitudes among Army people when compared with the general population.

There is a noticeable differential in the ability areas, where the Army is underrepresentative and low. There are also obvious differences in such demographic variables as socio-economic status, parental income and father's occupation. One might tentatively conclude from this combined data sample, nevertheless, that those individuals attracted by the Army directly after high school exceed their peers in attitudes even more than they lag in demographics.

The comparison of those Army enlistees who postponed entry at least eighteen months after graduation ("late arrivals" with less than 2 years service) is even more complicated. Several of the attitude differences from this comparison group are probably still forming, since the time-in-service of "late arrivals" is less than half of their time since graduation. Dissatisfaction with working conditions, for example, may be expected to decrease as their lower-grade training is completed. Allowing for the fact that these individuals are still in transition (into and through the Army) after a presumably less than satisfying intermediate experience, the influence of new environmental conditions may be expected to alter attitudes over time.

The results of computations for this index also show "late arrivals" to be somewhat more unrepresentative of their peers than those who enter the Army directly after high school graduation. The notable exception is, once again, racial mix--where "late arrivals" are actually closer in composition to those who never enter the Army. Generally, however, these results parallel those of the Comparative Distribution Index in highlighting the differences between age-similar groups, based on their time of entry.

4. ATTITUDES AND ATTITUDE CHANGES

In A History of Militarism, Alfred Vagts (1937) writes that "militarism is ... not the opposite of pacifism; its true counterpart is civilianism." He states that militarism "covers every system of thinking and valuing and every complex of feelings which rank military institutions and ways above the ways of civilian life, carrying *military mentality* and modes of acting and decision into the civilian sphere"(p. 15; emphasis added). As John D. Blair (1975) also observes, the existence of a "military mentality" or "military mind" is generally accepted by critics as well as supporters of the military establishment--and the treatment of distinctions between civilian and military belief systems is prevalent in related literature (cf. Mills, 1956; Huntington, 1957; Janowitz, 1960, 1975; Moskos, 1970; Abrahamsson, 1972; Bachman and Blair, 1975; Ambrose and Barber, eds., 1972).

Even Tocqueville (1966 ed.), in his discussion of the "most warlike and most revolutionary class in democratic armies," draws a distinction between conscriptee-privates and Army careerists. "Officers are distinct from the nation," he writes, and non-commissioned officers are "bent on war, on war always and at any cost..." (p. 274). Privates, on the other hand, are the "best representatives of the pacific and orderly spirit of the country;" they "carry the strengths and the weaknesses of the manners of the nation" and display a "faithful reflection" of the attitudes and spirit of the community at large (p. 274).

The draft did provide a procedure whereby the systematic entry and egress of "citizen soldiers" would cause the convergence of civilian "community" values and distinctive military ideologies. The *revolving-door process* of conscription consequently assured that multitudes of citizens would serve short periods of time in the Army and then return to civilian life--creating a balanced perspective of military and civilian responsibilities. Conscriptees were not seen to contract the mode of life or spirit of the Army--since, as Tocqueville (1966) again writes, their minds remained attached to the interests and duties that engaged them in civil life.

A major concern during the AVF debates, as noted in the section on *Political Legitimacy*, was, therefore, the perceived need to maintain a mix of civilian and military belief systems in the ranks of the Army. By losing assurances of "automatic" community representation through conscription, it was feared that the Army would become isolated from civilian society. Since wars require broad foundations of support, community representation was seen to provide the necessary irritant or inhibition to the arbitrary involvement of military forces.

Several consequences were seen during the AVF debates to be directly tied to the representation of civilian attitudes and values in the Army. The concern that the Army would initially attract only those who desired to escape from contemporary society fostered a fear that the Army would become not only *isolated*-- but *alienated* as well, disliking American society even more than potential adversaries. In addition, the understanding of the military organization as "professionals in violence"--trained to deal with mass violence in an equally violent manner--created visions of a *professional mercenary force:* an Army of cut-throats and thieves, bound only by their mutual penchant for bloodshed and adventure.

Without the systematized representation of civilian attitudes, the argument was also made that, eventually, a homogeneous configuration of career professionals would completely dominate military ideology and patterns of behavior. These and other influences could be expected to create an *"ideological cast", "separate military ethos,"* or the characteristic *"military mind."* Support for this argument is also drawn from several facets of military recruitment and retention: (1) self selection (i.e., the fact that individuals who are more zealous and more pro-military are more likely to pursue military careers), (2) self-recruitment (i.e., overrepresentation of the offspring of military men and, thereby, a strengthening of traditional military perspectives), (3) negative selection/retention (i.e., processes of socialization and the elimination of those enlistees--through non-promotion or self-rejection after one term--who do not fit into the prevailing military establishment), and (4) regional bias (i.e., in the South, South West, and rural areas where emphasis and acceptance of military careers is greater).

These attitude factors combine to determine the *political legitimacy* of the Army-- and, in the case of *extreme divergence*, are even seen to increase the likelihood of entry into an unpopular war or *coup d'etat*. The following analysis of attitudes and attitude changes, however, does not seek to interpret the meaning of convergence/divergence in respect to the likelihood of possible consequences--or hypothesize on the relationship between attitudes and behavior. It is assumed, nevertheless, that the norm for Army attitudes and perceptions is *approximate representation* of the civilian population.

Analysis of Attitudes The principal source of data for this analysis is the NLS, with one area of comparative perceptions from the Gilbert-USAREC tape merge. The NLS groups used in this analysis are (1) those who never entered the Army (the civilian standard for comparison), (2) those with 2 yrs. or less service and (3) those with more than 2 yrs. service. These groups correspond to those used in previous evaluations of NLS data (Section 3). The "In and Out" group was not included due to the fact that these questions were not answered by the majority of respondents in this group, thus reducing sample size below the level of assumed validity.

Five questions from the NLS Second Follow-Up and one from the Gilbert-USAREC were selected for the initial study of attitudes. *Measures of central tendency* were calculated in order to evaluate areas of convergence/divergence. *Measures of dispersion* were also calculated to assess the level of homogeneity among different groups. The results of the weighted mean scores for each question are depicted in Figures 4.1 through 4.6. Actual mean scores and standard deviations are presented in Tables 4.1 through 4.6.

Voluntary Group Activities

Participation in voluntary group activities (Figure 4.1) for both categories of Army entrants is approximately the same as the level of participation among civilian counterparts. For all possible areas of voluntary group activity except one, the mean values for level of participation are closest to "not at all" (Table 4.1). The only exception to *non*-participation among all groups is in the category of "sport teams or clubs," where the central tendency approaches "member only."

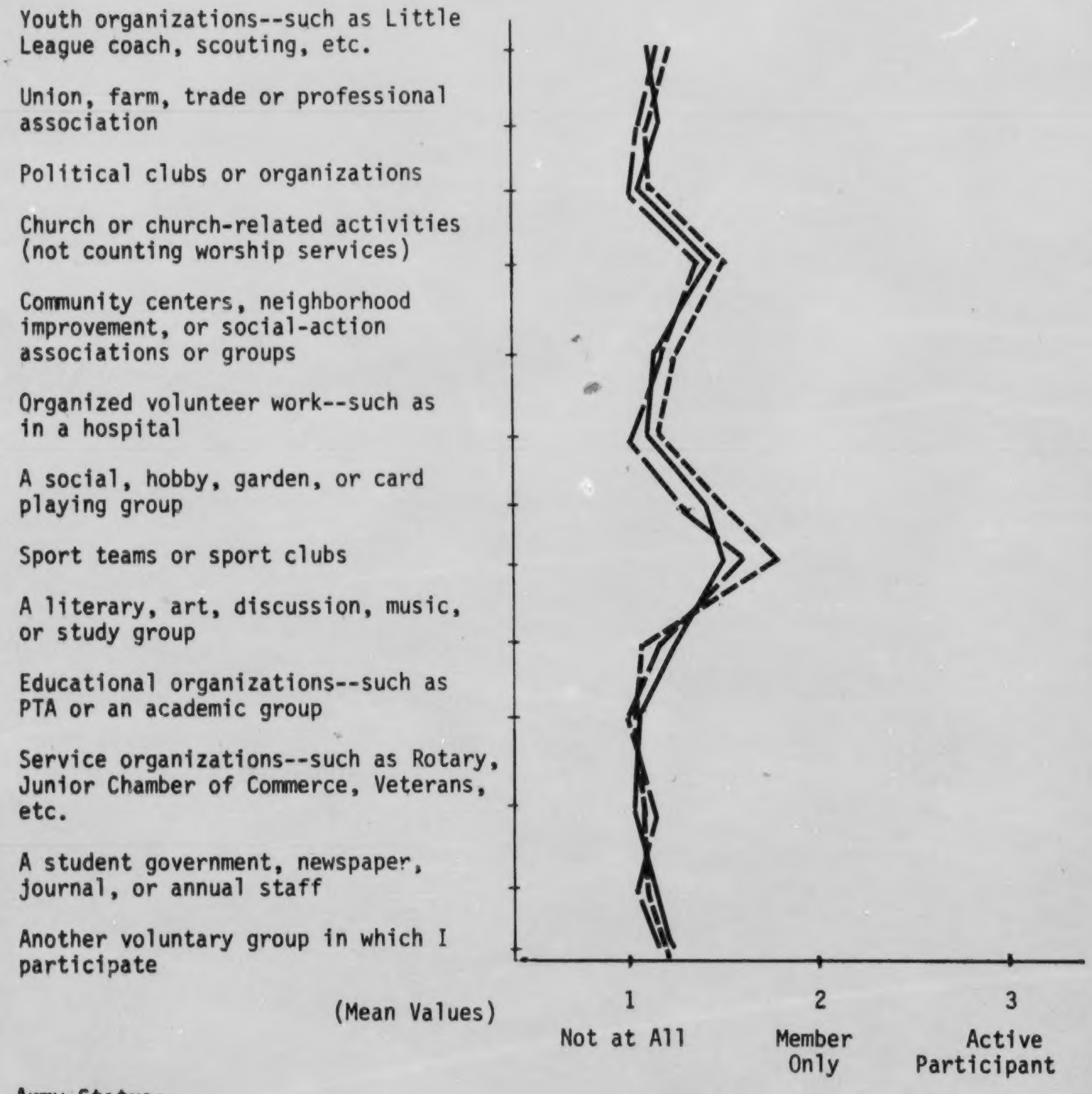
For all voluntary group activities, Army entrants rate the highest levels of participation in seven of thirteen activities. For those areas where civilian participation is higher, scholarly endeavors seem to predominate. Differences, however, are relatively small. An interesting observation may be drawn from the fact that Army entrants generally show a *higher tendency toward community participation* (i.e., in youth, church-related, community/social, volunteer, and service organizations). Standard deviations do not suggest any greater homogeneity among Army entrants than their civilian counterparts. The one noticeable exception may be the apparently strong inclination toward *non*-participation in educational organizations.

Self-Esteem

A discussion of changes and differences between Army and civilian composite scores of self-esteem is presented in the section on attitude indices. The results of Figure 4.2 and Table 4.2 are indicators of self-esteem at one point in time (the NLS Second Follow-Up). Comparisons of these results should also be made, therefore, with the Self Concept Index (Table 4.7), covering the entire 2½ year period of NLS administration.

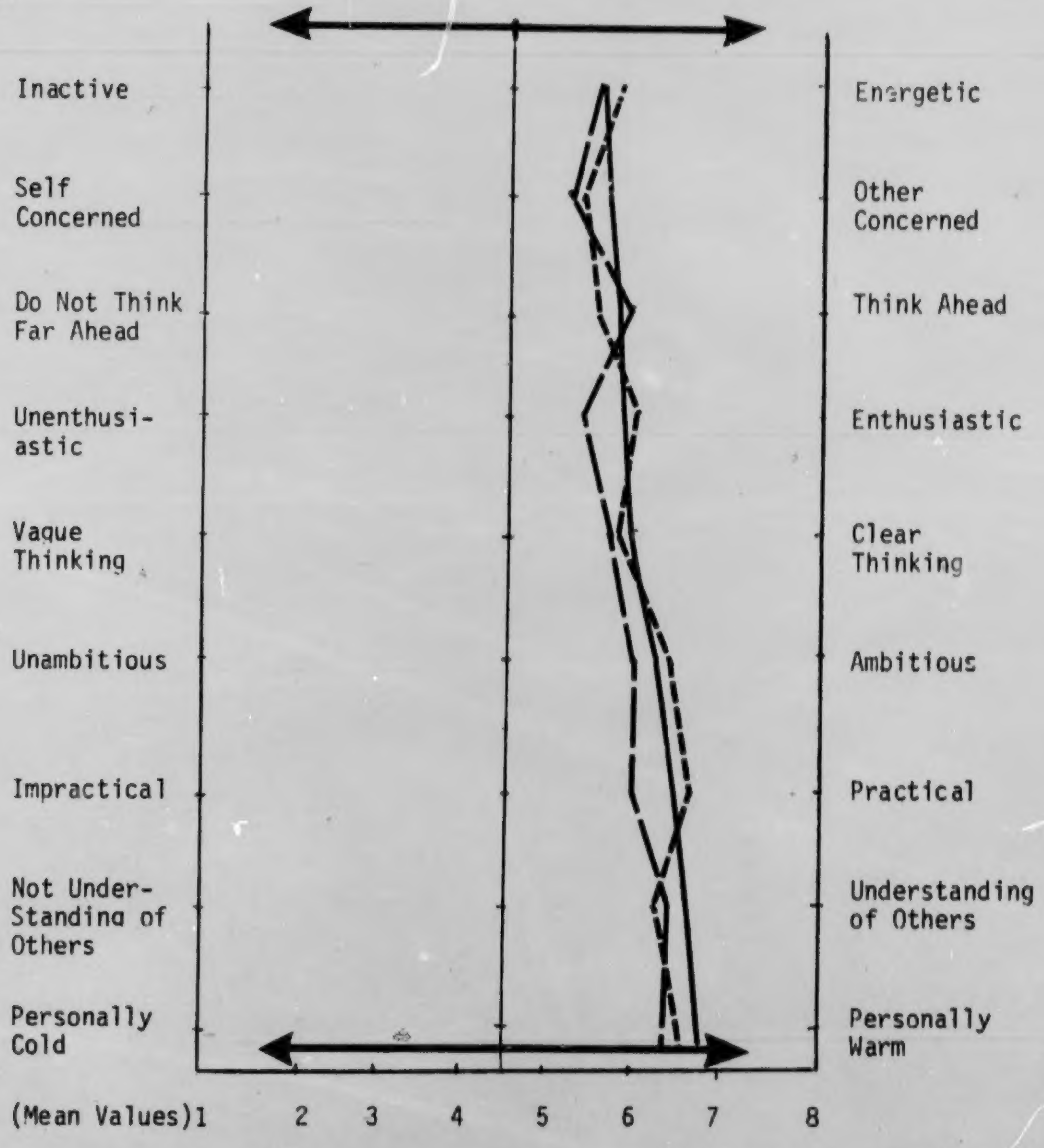
In terms of "positive" self-ratings, the civilian cohort has a tendency to rate itself higher than either Army group in four categories: Understanding of Others, Other Concerned, Clear Thinking, and Personally Warm. These may be interpreted as "passive" (as opposed to

Figure 4.1 Voluntary Group Activities



SOURCE: NLS Second Follow-Up: "To what extent have you voluntarily participated in the following groups during the year October 1973 through October 1974?"

Figure 4.2 Self-Rating of Personal Traits



SOURCE: NLS Second Follow-Up: "The following items give you a chance to rate yourself on the degree to which you possess one of each pair of traits. For ratings on this scale, 1-4 refers to the trait on the far left side while 5-8 refers to the trait on the far right side."

Table 4.1

Voluntary Group Activities: Weighted Mean Scores and Standard Deviations

	Army Status					
	Never		2 Yrs or Less		More Than 2 Yr	
	Mean	SD	Mean	SD	Mean	SD
Youth Organizations	1.16	.55	1.19	.57	1.23	.62
Union, farm, trade, professional	1.20	.55	1.05	.24	1.11	.43
Political Clubs or Organizations	1.11	.45	1.03	.31	1.08	.34
Church or Church-related activities	1.47	.77	1.41	.78	1.48	.76
Community Centers, social-action groups	1.14	.50	1.15	.52	1.22	.62
Organized volunteer work	1.11	.49	1.03	.31	1.14	.50
Social, hobby, garden, cards	1.40	.78	1.31	.74	1.47	.81
Sport teams or clubs	1.54	.88	1.63	.91	1.75	.95
Literary, art, discussion, music, study	1.20	.61	1.16	.56	1.12	.50
Educational organizations	1.07	.41	1.01	.14	1.04	.28
Service organizations	1.04	.31	1.17	.53	1.07	.36
Student government, newspaper, journal	1.11	.49	1.04	.31	1.08	.41
Another voluntary group	1.23	.62	1.15	.55	1.22	.62

SOURCE: NLS Second Follow-Up: "To what extent have you voluntarily participated in the following groups during the year October 1973 through October 1974?" 1. Not at all; 2. Member only; 3. Active participant.

Table 4.2

Self-Rating of Personal Traits: Weighted Mean Scores and Standard Deviations

	Army Status					
	Never		2 Yrs. or Less		More Than 2 Yrs.	
	Mean	SD	Mean	SD	Mean	SD
Energetic (Inactive)	5.64	1.81	5.64	2.08	5.70	1.90
*Understanding of Others (Not understanding of others)	6.63	1.58	6.57	1.50	6.31	1.87
Think Ahead (Do not think far ahead)	5.81	1.97	5.84	1.99	5.67	1.99
Other Concerned (Self concerned)	5.66	1.80	5.23	1.75	5.53	1.91
*Enthusiastic (Unenthusiastic)	5.84	1.80	5.51	1.95	6.00	1.83
*Practical (Impractical)	6.44	1.64	6.25	1.48	6.65	1.50
Clear Thinking (Vague thinking)	5.99	1.68	5.81	1.79	5.89	1.91
*Personally Warm (Personally cold)	6.69	1.64	6.47	1.96	6.57	2.00
*Ambitious (Unambitious)	6.28	1.67	6.27	1.91	6.45	1.66

SOURCE: NLS Second Follow-Up: "The following items give you a chance to rate yourself on the degree to which you possess one of each pair of traits. For rating on this scale, 1-4 refers to the trait on the far left side (parentheses) while 5-8 refers to the trait on the far right side (underlined trait)".

*NOTE: These response ratings have been reversed from the original survey, to provide uniformity, i.e., from positive to negative, in this presentation.

"active") traits, when compared with ratings where Army "More than 2 Yrs." entrants are overrepresentative of their civilian counterparts: Enthusiastic, Practical, and Ambitious. The "2 Yrs. or Less" group rates itself higher than both of the other groups on only one personal trait: Think Ahead. With the exception of Energetic, however, the "2 yrs. or Less" group is underrepresentative of the civilian population--i.e., lower in self-rating--on all other personal traits.

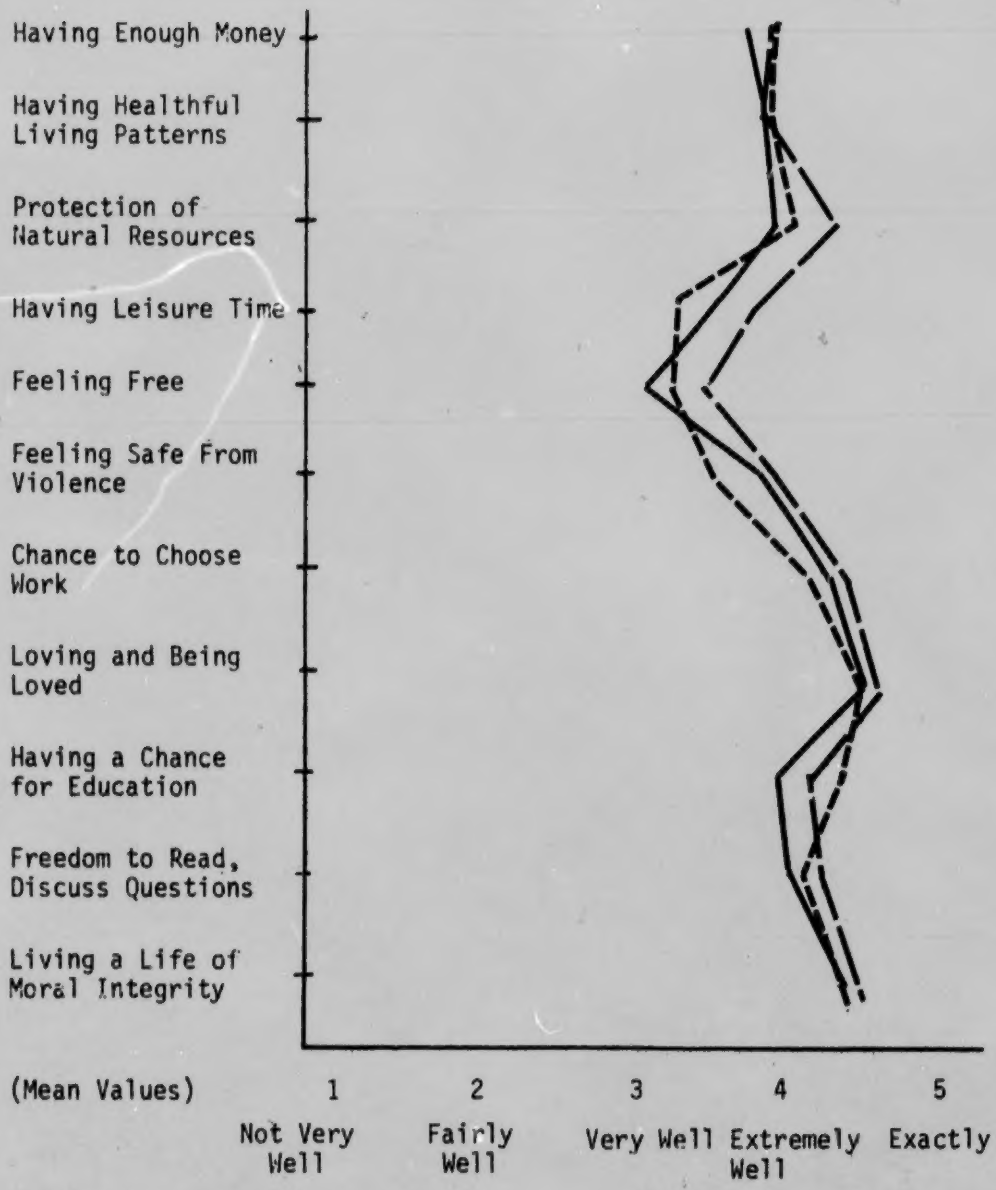
Generally, all groups show positive tendencies. The greatest *differences* on self-ratings appear to occur between the "More than 2 Yrs." and "2 Yrs. or Less" groups of Army entrants. Overall, measures of dispersion are also greater among the two groups of Army entrants than the civilian group. An examination of the tabular results (Appendix B) also shows that a greater proportion from the "More than 2 yrs." group select the most positive rating (8) than any other group; although the proportion of the "2 Yrs. or Less" group selecting the most positive rating (8) is higher than its civilian counterpart, this group also has the greatest overall proportion selecting the most negative response (1).

Quality of Life Perceptions and Important Goals in Life

If the "2 Yrs. or Less" group shows a general tendency toward underrepresentation in self-ratings of personal traits, the exact opposite is true regarding importance placed on quality of life variables (cf. Figure 4.3 and Table 4.3). In all cases but one, "having a chance for education," the "2 Yrs. or Less" group places the highest perceived importance on quality of life factors.

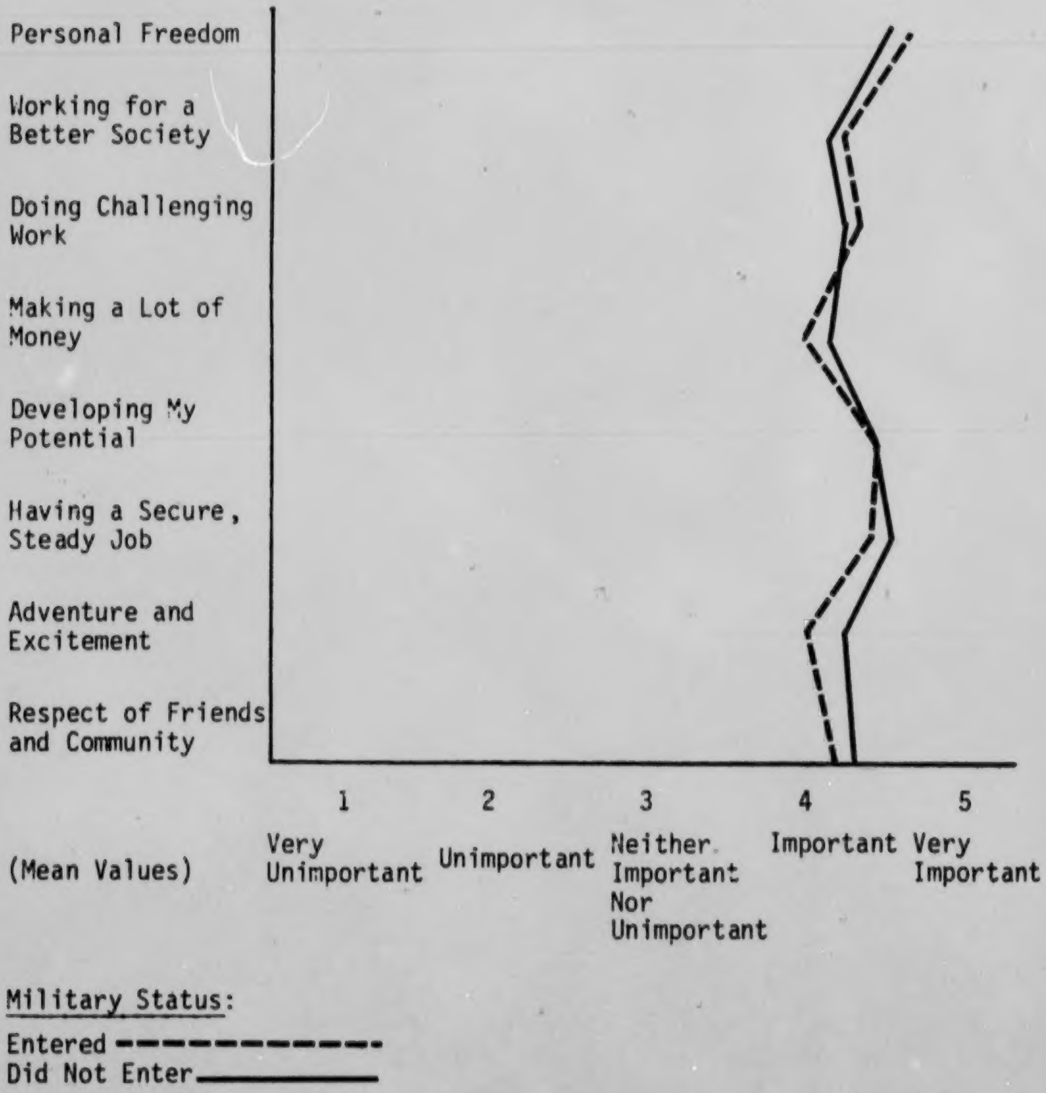
The central tendencies of all groups are close, with the greatest civilian/Army discrepancies being overrepresentation of stress on "feeling free" and "having a chance for education" by the "2 Yrs. or Less" and "More than 2 Yrs." groups, respectively. The single highest percentage rating for each group is on "loving and being loved."

Figure 4.3 "Quality of Life" Perception



SOURCE: NLS Second Follow-Up: "How well does each of the following statements express what 'Quality of Life' means to you?"

Figure 4.4 Important Goals In Life



SOURCE: Gilbert -USAREC Tape Merge (MARDAC): "How important is this 'Goal in Life' to you personally?"

Table 4.3

Quality of Life Perceptions: Weighted Mean Scores and Standard Deviations

	Army Status					
	Never		2 Yrs or Less		More than 2 Yrs	
	Mean	SD	Mean	SD	Mean	SD
Having Enough Money	3.7	1.22	3.9	.95	3.9	1.00
Having Healthful Living Patterns	3.8	1.10	3.8	1.22	3.8	1.22
Protection of Natural Resources	3.9	1.08	4.2	1.11	4.0	1.15
Having Leisure Time	3.6	1.18	3.8	1.18	3.4	1.33
Feeling Free	3.0	1.43	3.5	1.50	3.2	1.51
Feeling Safe from Violence	3.8	1.22	3.9	1.16	3.5	1.32
Chance to Choose Work	4.2	1.02	4.3	1.12	4.1	1.22
Caring and Being Loved	4.4	.96	4.5	.94	4.4	1.03
Having a Chance for Education	3.9	1.15	4.1	1.08	4.3	1.02
Living a Life of Moral Integrity	4.3	.97	4.4	.98	4.3	.98
Freedom to Read, Discuss Questions	4.0	1.06	4.2	1.06	4.1	1.17

SOURCE: NLS Second Follow-Up: "How well does each of the following statements express what "quality of life" means to you?" 1. Not very well; 2. Fairly well; 3. Very well; 4. Extremely well; 5 Exactly.

NOTE: For purposes of conventional scoring (low to high) and uniformity, response numbers have been reversed from that of the original survey.

Table 4.4

Important Goals in Life: Weighted Mean Scores and Standard Deviations

	Military Status			
	Entered		Did Not Enter	
	Mean	SD	Mean	SD
Personal Freedom	4.74	.80	4.66	.63
Working for a better society	4.25	.83	4.19	.90
Doing challenging work	4.26	.83	4.22	.87
Making a lot of money	4.05	.98	4.23	1.02
Developing my potential	4.41	.82	4.41	.67
Having a secure, steady job	4.36	.89	4.49	.89
Adventure and excitement	3.95	.96	4.21	.94
Respect of friends/community	4.16	.87	4.23	.87

SOURCE: Gilbert-USAREC tape merge (MARDAC): How important is this "goal in life" to you personally? 1. Very unimportant; 2. Unimportant; 3. Neither important nor unimportant; 4. Important; 5. Very important.

NOTE: For purposes of conventional scoring (low to high) and uniformity, response numbers have been reversed from that of the original survey.

Standard deviations on responses are generally highest among the "More than 2 Yrs." group of Army entrants.

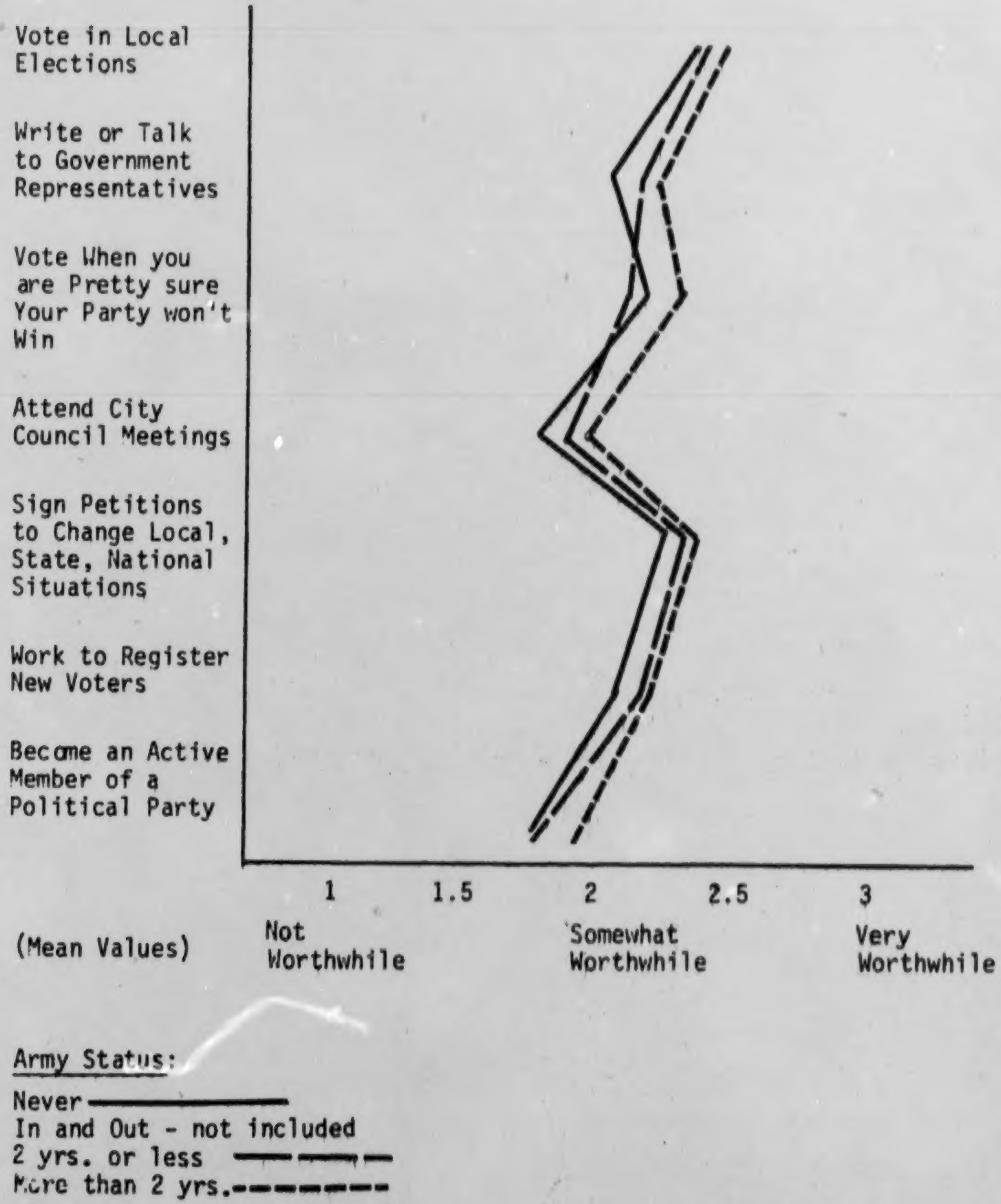
The measures of central tendency on ratings of "Important Goals in Life" (Figure 4.4 and Table 4.4) for military entrants and non-entrants are generally close. The greatest differences between these groups are *under*representative stress by military entrants on the importance of (in order) "adventure and excitement," "making a lot of money," and "having a secure, steady job." Measures of dispersion are relatively close between groups on ratings of goals.

Political Attitudes and Participation

For *all* categories of attitudes toward the positive value of political participation, the "More than 2 Yrs." group has the highest mean scores (Figure 4.5 and Table 4.5). It is not surprising, therefore, that for all but one area of actual participation (i.e.,"talking about public problems with family members"), the "More than 2 Yrs." group rates itself highest (Figure 4.6 and Table 4.5). The "2 Yrs. or Less" group follows a similar pattern for placing positive values on political activity. In all but one activity ("voting when you are pretty sure your party won't win"), the "2 Yrs. or Less" group attributes greater importance to political participation than its civilian counterpart.

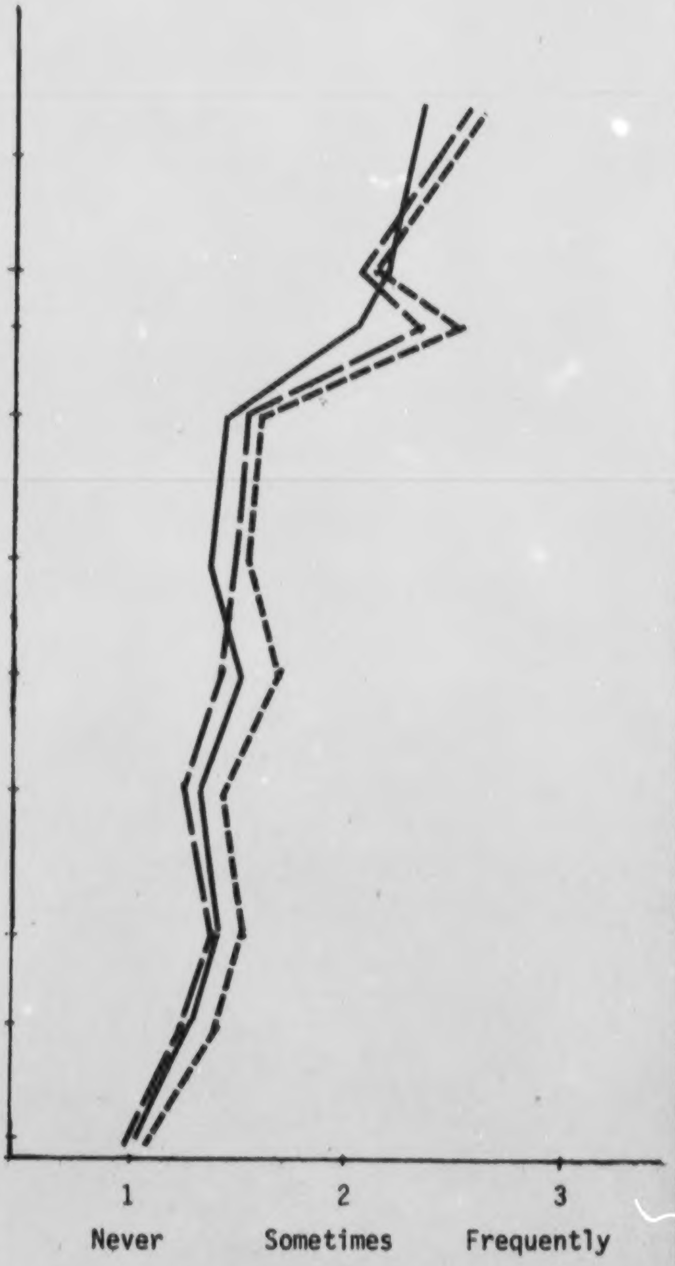
Generally, mean scores are relatively close between groups in both areas of attitudes and actual participation. The greatest differences from the civilian standard occur in the overrepresentative attitudes of the "More than 2 Yrs." group. In almost all cases, the "2 Yrs. or Less" group is the more "representative" of the two Army entrant groups. All groups rate "voting" as the most worthwhile activity. And, all groups--especially the Army entrants--have most frequently participated in discussions with friends, fellow-workers, and family members. Standard deviations among groups are similar, but, in almost all cases, larger for responses by Army entrants.

Figure 4.5 Political Attitudes



SOURCE: NLS Second Follow-Up: "Generally speaking, how worthwhile are the following activities?"

Figure 4.6 Political Participation



When you talk with your friends, do you ever talk about public problems--that is, what's happening in the country or in your community?

Do you ever talk about public problems with any of the following people?
Your family

People where you work

Community leaders, such as club or church leaders

Do you ever talk about public problems with elected government officials or people in politics, such as Democratic or Republican leaders?

Have you ever talked to people to try to get them to vote for or against any candidate?

Have you ever given any money or bought tickets to help someone who was trying to win an election?

Have you ever gone to any political meetings, rallies, barbecues, fish fries, or things like that in connection with an election?

Have you ever done any work to help a candidate in his campaign?

Have you ever held an office in a political party or been elected to a government job?

(Mean Values)

Army Status:

Never ———————
In and Out - not included
2 yrs. or Less — — —
More than 2 yrs. - - - - - - -

SOURCE: NLS Second Follow-Up:
"The following questions ask about your political participation."

Table 4.5

Political Participation. Weighted Mean Scores and Standard Deviations

	Army Status					
	Never		2 Yrs or Less		More Than 2 Yrs	
	Mean	SD	Mean	SD	Mean	SD
When you talk with your friends, do you ever talk about public problems--that is, what's happening in the country or in your community?	2.32	.58	2.42	.60	2.54	.61
Do you ever talk about public problems with any of the following people?						
Your family	2.26	.63	2.15	.67	2.23	.73
People where you work	2.10	.69	2.36	.60	2.50	.67
Community leaders, such as club or church leaders	1.46	.64	1.58	.70	1.60	.72
Do you ever talk about public problems with elected government officials or people in politics, such as Democratic or Republican leaders?	1.31	.58	1.43	.64	1.55	.73
Have you ever talked to people to try to get them to vote for or against any candidate?	1.47	.64	1.38	.60	1.64	.74
Have you ever given any money or bought tickets to help someone who was trying to win an election?	1.23	.52	1.19	.46	1.38	.63
Have you ever gone to any political meetings, rallies, barbecues, fish fries, or things like that in connection with an election?	1.31	.55	1.30	.51	1.50	.67
Have you ever done any work to help a candidate in his campaign?	1.27	.53	1.24	.52	1.44	.67
Have you ever held an office in a political party or been elected to a government job?	1.03	.31	1.02	.14	1.10	.44

SOURCE: NLS Second Follow-Up: "The following questions ask about your political participation." 1. Never; 2. Sometimes; 3. Frequently.

NOTE: For purposes of conventional scoring (low to high) and uniformity, response numbers have been reversed from that of the original survey.

Table 4.6

Political Attitudes: Weighted Mean Scores and Standard Deviations

	Army Status					
	Never		2 Yrs. or Less		More Than 2 Yrs.	
	Mean	SD	Mean	SD	Mean	SD
Vote in Local Elections	2.41	.69	2.45	.73	2.50	.68
Write or talk to government officials	1.95	.68	2.13	.76	2.24	.70
Vote when you are pretty sure your party won't win	2.24	.76	2.21	.81	2.27	.75
Attend City Council meetings	1.83	.68	1.90	.73	2.01	.72
Sign Petitions to change local, state, national situations	2.30	.70	2.36	.74	2.43	.70
Work to register new voters	2.07	.74	2.14	.75	2.18	.73
Become an active member of a political party	1.75	.71	1.76	.73	1.92	.76

SOURCE: NLS Second Follow-Up: "Generally speaking, how worthwhile are the following activities?" 1. Not worthwhile; 2. Somewhat worthwhile; 3. Very worthwhile.

NOTE: For purposes of conventional scoring (low to high) and uniformity, response numbers have been reversed from that of the original survey.

Summary

Army tendencies toward *isolation* or *alienation* from society do not appear to be evident in these data. In fact, Army entrants profess greater acceptance of community standards and political processes than their civilian peers. Army entrants exhibit comparatively high levels of participation in community-related affairs (Figure 4.1; especially "More Than 2 Yrs" group), place higher importance on participation in political activities than non-entrants (Figure 4.5; both Army groups), actually participate to a greater extent in political activities (Figure 4.6; especially "More Than 2 Yrs." group), and place an equal or higher value on quality of life factors than non-entrants (Figure 4.3; especially "2 Yrs. or Less" group). Generally, there are no outstanding differences between Army entrants and their civilian counterparts.

Attitudinal data on the "mercenary" bent of Army entrants are inconclusive. The civilian group has a tendency to place greater importance on "making a lot of money" (Figure 4.4), and less emphasis on working through the system (Figures 4.5, 4.6). Both groups of Army entrants, however, place higher importance on "having enough money" as a quality of life factor, and are generally less concerned about "feeling safe from violence"--but do place equal value on the quality of "moral integrity" (Figure 4.3 and Table 4.3).

The computation of standard deviations was accomplished in order to evaluate the degree of homogeneity in the responses of Army entrants. If the hypothesis is made that Army entrants are more homogeneous as a group (i.e., reflect a distinctive "military mentality") than non-entrants, the assumption is made that the standard deviations on responses by Army entrants will be *smaller* overall. An examination of the results of these data shows that the standard deviations of Army groups are, in fact, usually *greater* than those of their civilian counterparts (Tables 4.1 through 4.6). Where differences in the dispersion of responses are seen, it is the Army groups who are most frequently in wider variance. Using a similar approach to preference and perception measures, Bachman and Blair (1975b) also found little evidence of consistent differences in homogeneity between civilians and non-career military men--but *did* find a somewhat consistent pattern among military *career-oriented* men toward greater homogeneity than their civilian peers. A further comparison of Army groups for these data shows that in all but one category--Political Attitudes--the "More than 2 Yrs." group has a *wider* variance of response than the "2 Yrs. or Less" group.

Bachman and Blair (1975b) note that several processes of homogenization occur among the professional military: self-selection, screening procedures by the military, continuous selection and rejection by the profession, normal processes of professional socialization and indoctrination (cf. also Abrahamsson, 1972). Their findings also suggest that years of service experience are not required for first-term enlisted men to develop the strongly "pro-military" attitudes of careerists--and, that processes of socialization and self-selection work to homogenize the attitudes of *career-oriented* personnel into the prevailing military belief system.

The conclusions of Bachman and Blair (1975a, 1975b) identify career-orientation as the most important factor in determining homogeneity, as well as divergence from civilian attitudes. Although career interest cannot be determined from the NLS data presented here, it is known that the "More than 2 Yrs." group demonstrated early interest in longer-term Army enlistment. It is not possible to define the "2 Yrs. or Less" and "More than 2 Yrs." groups on the basis of career interest, but it may be *assumed* (for the purpose of comparison) that: (1) a larger percentage of career-oriented people can be found in the "More than 2 Yrs." group, and/or (2) the "More than 2 Yrs." group has experienced the greater effects of homogenization processes.

A comparison of the two groups of NLS Army entrants shows the "More than 2 Yrs." group to be closer overall to non-entrants in other than political areas. The mean values of the "2 Yrs. or Less" group in Political Participation (Table 4.5)and Political Attitudes (Table 4.6), however, are closer to the mean values of non-entrants *in every case.* By combining the mean values in each category of responses, according to groups, an unusual pattern emerges. *In only the category of Political Participation are the two Army groups closer to each other than either one is to the civilian population.* In one instance, Political Attitudes, the "2 Yrs. or Less" group shows greatest convergence with the civilian population (i.e., the *least difference* between any group); and in all other cases (Self-Rating, Voluntary Group Activities, and Quality of Life Perceptions), it is the "More than 2 Yrs." group which shows greatest convergence with the civilian population.

These data are scant measures of attitudes and related activities, and are, at most, *suggestive* of relationships between groups. In order to further examine the nature of attitudinal differences, indices were constructed and *changes* in attitudes compared between the three NLS groups.

Attitude Indices and Changes Over Time

James A. Barber ("The Social Effects of Military Service" in Ambrose and Barber, eds., 1972) writes that both supporters and detractors of the Military Services see time spent in the Armed Forces as effecting changes in social attitudes: "The claims range from that of the Presidential Advisory Commission [on Universal Training, 1947] ... that a period of time devoted to military service 'would present additional opportunities for inculcating spiritual and moral ideals in support of American democracy,' to fears that military indoctrination results in large numbers of violent men trained to be killers" (pp. 160-161). There is little question that it is the expressed intention of the Army to inculcate certain values, and instill attitudes, responses, and loyalties (especially during initial training). The formal and informal processes of indoctrination are seen, in fact, to *raise* (on average) self-esteem, personal adjustment, and social maturity among recruits (*Ibid.*). Nevertheless, as Barber observes, the evidence of the past thirty years shows that "military service does not usually result in any very dramatic changes in social attitudes among those who serve" (*Ibid*., p. 163).

Most research on attitude changes over time has been conducted during periods of conscription--when there was strong contact between military and civilian domains, and the pressures of military socialization were tempered by civilian community values. There has not been a sufficient passage of time for the effects of service during the All-Volunteer environment to be evaluated in any great depth. The following analysis does not profess, therefore, to be anything more than a formative treatment of the attitudinal variables from one longitudinal instrument.

Attitude Indices

Attitude indices were constructed from the responses to questions contained in the NLS. The indices of "self-concept," "locus of control" and "orientation" are similar to those constructed by the National Center for Education Statistics (U.S., H.E.W., 1975a) to study changes in attitudes one and one-half years after graduation. The following is a description of the manner in which these attitude indices were derived:

> *Self-Concept* was measured by the mean percentage of persons who answered "agree strongly" or "agree" to the following statements: "I take a positive attitude toward myself."/ "I feel I am a person of worth, on an equal plan with others." /"I am able to do things as well as most other people."/ "On the whole, I'm satisfied with myself." Other possible responses to these statements were "disagree," "disagree strongly," and "no opinion." Persons answering "no opinion" were excluded from calculations.
>
> *Locus of Control* was measured by the mean percentage of persons who answered "disagree strongly" or "disagree" to the following statements: "Good luck is more important than hard work for success."/ "Every time I try to get ahead, something or somebody stops me."/ "Planning only makes a person unhappy since plans hardly ever work out anyway."/ "People who accept their condition in life are happier than those who try to change

things." Other possible responses were "agree," "agree strongly," and "no opinion." Persons answering "no opinion" were excluded from the calculations.

Orientation Toward Environmental Values was measured by the mean percentage of persons who answered "very important" to the question "How important is each of the following to you in your life?"

> Work Orientation: "Being successful in my line of work"/ "Having lots of money"/ "Being able to find steady work"
>
> Community Orientation: "Having strong friendships"/ "Being a leader in my community"/ "Being able to give my children better opportunities than I've had"/ "Working to correct social and economic inequalities"
>
> Family Orientation: "Finding the right person to marry and having a happy family life"/ "Living close to parents and relatives"/ "Getting away from this area of the country" (complement used)

Other possible responses were "somewhat important" and "not important." The answer "not important" was used for the last statement under family orientation because of the way in which it was expressed.

Political Activeness was measured by the mean percentage of persons who answered "Frequently" to the following areas of political participation:

> Political Awareness: "Do you ever talk about public problems with any of the following people?"/ "Your family"/ "People where you work"/ "Community leaders, such as club or church leaders"/ "Government officials or people in politics, such as Democratic or Republican leaders"
>
> Political Participation: "Have you ever talked to people to try to get them to vote for or against any candidate?"/ "Have you ever gone to any political meetings, rallies, barbecues, fish fries, or things like that in connection with an election?"/ "Have you ever done any work to help a candidate in his campaign?"/ "Have you ever held an office in a political party or been elected to a government job?"

Also, by the mean percentage of persons who answered "very worthwhile" to the following activities:

> Political Attitudes: "Voting in local elections"/ "Writing or talking to representatives in government"/ "Signing petitions to change the way things are in locality, state, nation"/ "Becoming an active member of a political party"

Other possible responses to these statements were "Never" and "Sometimes" for political participation/awareness, and "Not Worthwhile" and "Somewhat Worthwhile" for political attitudes.

Self Concept and Locus of Control Over Time

For all groups, self concept has increased with time (Table 4.7). It is interesting to note that during the Base Year Survey (Spring,1972), both groups of Army entrants exhibited *less* self-esteem than non-entrants. All groups increased by the time of the First Follow-Up (Fall, 1973), with the greatest increase (15%) occurring among the "2 Yrs. or Less" group. With the administration of the Second Follow-Up (Fall, 1974), it is seen that both groups of Army entrants have *surpassed* non-entrants in this composite measure of self-esteem. Although the two groups of Army entrants increased in self-esteem at twice the rate of non-entrants, it should be observed that these increases have worked to place Army entrants at a level more *representative* of their civilian counterparts.

Table 4.7

Self Concept and Locus of Control Over Time

	Army Status								
	Never			2 Yrs. or Less			More Than 2 Yrs.		
	Base	1 FU	2 FU	Base	1 FU	2 FU	Base	1 FU	2 FU
Self Concept	86.4	92.2	93.4	78.5	90.4	93.9	81.6	88.8	94.0
Locus of Control	79.4	83.8	83.2	66.8	76.9	82.4	72.4	76.6	80.8

Source: NLS Base Year, First Follow-Up (1 FU) and Second Follow-Up (2 FU).

The measures for locus of control--or the sense of control over the environment--show a similar pattern to that of self-concept. During the senior year of high school, individuals who would later enlist in the Army showed a lower sense of control over the environment than their classmates. However, increases in the sense of control among Army entrants rose at a much higher rate than that of non-entrants--especially in the case of the "2 Yrs or Less" group where the rate of increase over 2½ years was approximately *five times* that of non-entrants. Again, it should be noted that these increases among Army entrants have only operated to create *increased representation*--especially for the "2 Yrs. or Less" group. In fact, the Second Follow-Up index for non-entrants is still higher than either Army group. It is also interesting to note that the sense of control among non-entrants seemed to level off between the First and Second Follow-Ups, while the degree of increase for Army groups continued (but at a much lower rate for the "2 Yrs or Less" group).

Orientation Toward Environmental Values

Composite measures of orientation toward environmental (i.e., work, community, and family) values were computed for the three groups from data provided in the NLS Second Follow-Up (Table 4.8). In orientation toward work values and community values, both Army groups are higher than their civilian counterparts--with the greatest difference being overrepresentation in orientation toward community values and work values by the "More than 2 Yrs." group. Under family orientation, however, the "More than 2 Yrs" group shows the closest alignment with the non-entrant population, while the "2 Yrs. or Less" group is very underrepresentative (also, the greatest variance of this group from the civilian standard).

Table 4.8

Index of Orientation Toward Environmental Values

	ARMY STATUS		
	Never	2 Yrs or Less	More Than 2 Yrs
Work Orientation	55.1	60.0	65.4
Community Orientation	39.0	45.8	50.8
Family Orientation	54.8	47.4	56.1
Environmental Values Index	49.6	51.1	57.4

Source: NLS Second Follow-Up.

Overall, it is also interesting to note that the "2 Yrs or Less" group is closer to the non-entrant population in expressing orientation to environmental values than it is to the "More than 2 Yrs" group of Army entrants. Longitudinal measures were not developed for the two groups of Army entrants, but available data on the non-entrant population (U.S., H.E.W., 1975a) show a tendency toward decreasing value orientation over time. For example, the Base Year composites for work orientation (60.0) and community orientation (46.0) among non-entrants are almost identical to the Second Follow-Up composites of the "2 Yrs or Less" group; and the civilian Base Year composite for family orientation (58.5) was also several percentage points higher than that of the Second Follow-Up. An examination of the tabular results from a previous related study (Purcell, et. al, 1976) shows that a similar pattern occurred in the case of the "2 Yrs or Less" group (i.e., decreasing orientation)--but, that orientation toward each category of environmental values *increased* for the "More than 2 Yrs" group of Army entrants. Similar, also, in the earlier surveys was the higher orientation toward work and community values by Army entrants, but a lower orientation toward family values by both groups.

Political Activeness

The composite Index of Political Activeness combines measures of attitudes toward the value of participation, the frequency of social intercourse (and, thereby, "awareness" through the interchange of ideas and perceptions), and actual participation in political activities. These data were taken from the NLS Second Follow-Up. There is no longitudinal reference.

The results of this composite index (Table 4.9) are similar to the results in the analysis of attitudes. The "More than 2 Yrs" group is substantially higher than the civilian group in all categories of political activeness--with the greatest *relative* differences occurring in participation and awareness. The overall index of activeness for the "More than 2 Yrs" group is over fifty percent greater than that of the civilian standard.

Table 4.9
Index of Political Activeness

	ARMY STATUS		
	Never	2 Yrs or Less	More Than 2 Yrs
Political Attitudes	32.2	40.0	43.9
Political Awareness	22.7	27.8	37.2
Political Participation	5.7	3.1	9.95
Political Activeness Index	20.2	23.6	30.4

Source: NLS Second Follow-Up.

The "2 Yrs or Less" group of Army entrants, though higher in the categories of attitudes and awareness, exhibits less propensity toward actual participation than the non-entrant group. Nevertheless, the

"2 Yrs or Less" group is actually *closer to the civilian standard* in measures of political activeness than it is to the "More than 2 Yrs" group of Army entrants.

Changes Over Time

An interesting aspect of "representation" is the understanding that it may be expected to necessarily change over time. For example, even if the Army was somehow perfectly representative by every measure of membership characteristics--and no one entered or left--the influences of time and environment would independently operate to alter the configuration of Army personnel. Among the many possible changes in representation would be variance in the area of attitudes.

If perfect representation in Army attitudes was a policy goal, probably the most that could be expected would be *relatively proportionate change* or *approximate convergence* with the civilian population over time. Three areas of attitudes from the NLS--self-appraisal, important factors in life's work, and job satisfaction--were compared in respect to changes over the 2½ year period following graduation.

Attention was focused on the "More than 2 Yrs" group of Army entrants since (1) the effects of service in the Army on attitudes could be measured for both NLS follow-up surveys, and (2) a greater and more reliable measure of *time-in-service* could be evaluated. The three responses in each Base Year question receiving the most positive total response by the civilian standard were first selected for study. The proportion with the most extremely positive responses (i.e., "very important," "very satisfied," "agree strongly") were then compared over the period of survey administration covered in the NLS. The results of this comparison are presented in Figures 4.7 through 4.9.

Figure 4.7 Important Factors In Life's Work Over Time

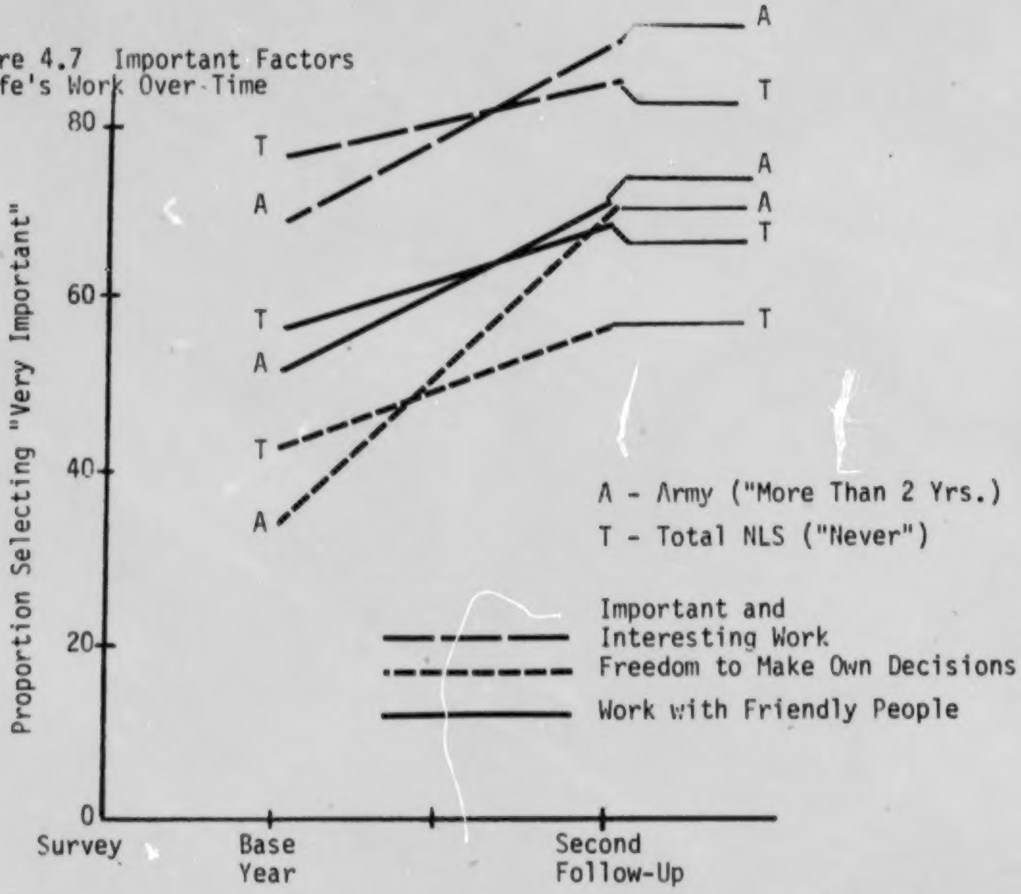


Figure 4.8 Job Satisfaction Over Time

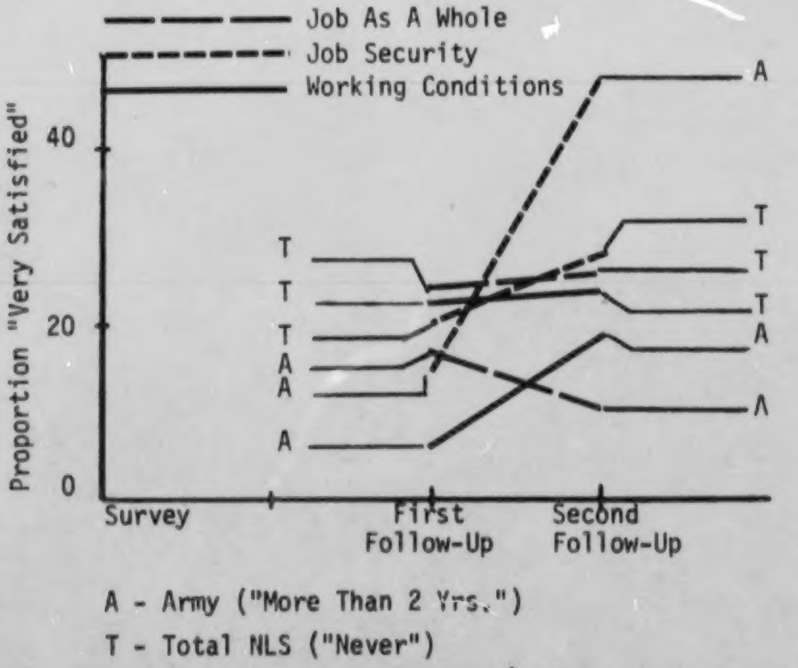
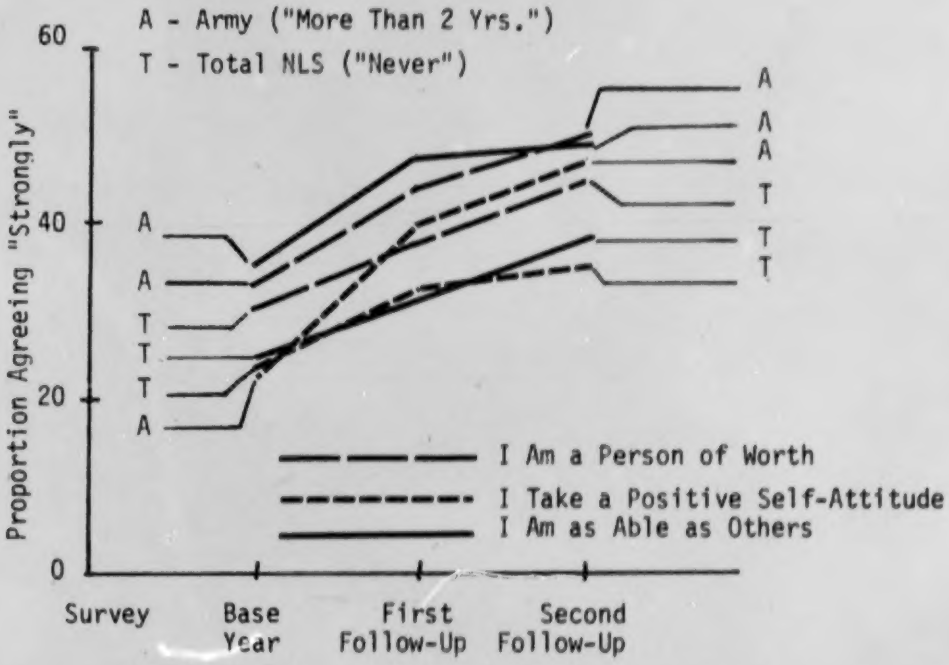


Figure 4.9 Self-Appraisal Over Time



In all nine measures for non-entrants, there is a positive change. The group of Army entrants also exhibits a positive shift in attitudes for all but one measure--"Job as a whole." Nevertheless, with the one exception of "Job as a whole," this group of Army entrants has a *greater upward slope* than non-entrants in each selected response category. This general observation concerning the *greater shift* of attitudes among Army entrants is supported by the results of Table 4.11. In all cases, for both groups of Army entrants--while self/environment appraisal measures are lower than non-entrants during high school--there is a much greater positive change over the 2½ year period following graduation.

A closer look at the tabular results of these three questions shows that: (1) Army entrants are relatively similar to non-entrants regarding patterns of change in attitudes toward Important Factors in Life's Work (Table 4.10)--with the "More Than 2 Yrs." group displaying a greater

Table 4.10

Important Factors in Life's Work: Attitudes Over Time[a]

How important is each of the following factors in determining the kind of work you plan to be doing for most of your life?	Army Status					
	Never		2 Yrs. or Less		More Than 2 Yrs.	
	Base Year	2nd Follow-Up	Base Year	2nd Follow-Up	Base Year	2nd Follow-Up
VERY IMPORTANT						
Previous work experience	19.5	38.9	18.4	40.5	18.3	31.8
Relative/Friend in same field	13.2	7.7	18.5	7.8	15.4	9.8
Available job openings	29.2	50.0	34.1	50.6	31.0	47.4
Work matches hobby interest	26.0	27.0	29.7	37.5	18.6	30.5
Good income start/few years	31.3	52.5	40.4	60.1	43.4	68.7
Job Security	40.8	63.5	51.1	66.0	46.1	76.9
Important & interesting work	79.1	84.4	74.6	89.2	70.9	88.3
Freedom to make own decisions	42.9	57.7	47.1	62.2	37.8	69.5
Opportunity for promotion in long run	41.2	61.6	58.7	68.5	52.3	79.0
Working with friendly people	57.6	68.0	47.1	73.6	51.1	69.8
SOMEWHAT IMPORTANT						
Previous work experience	34.5	39.6	34.3	37.3	22.6	51.8
Relative/Friend in same field	32.4	24.5	32.3	22.3	34.0	25.8
Available job openings	43.7	38.9	37.9	40.8	41.7	42.2
Work matches hobby interest	32.5	37.7	39.8	35.0	36.1	32.2
Good income start/few years	49.9	39.1	50.0	33.7	43.7	27.5
Job Security	43.4	30.2	38.4	33.3	41.5	19.2
Important & interesting work	18.7	14.0	25.4	7.7	22.4	11.7
Freedom to make own decisions	46.3	39.0	42.1	32.5	51.2	29.9
Opportunity for promotion in long run	42.1	31.4	35.4	27.1	32.7	15.7
Working with friendly people	34.6	28.2	43.7	22.2	37.5	27.0
NOT IMPORTANT						
Previous work experience	46.0	21.6	47.3	22.2	59.0	16.5
Relative/Friend in same field	54.3	67.9	49.2	69.8	50.7	64.4
Available job openings	27.2	11.1	28.0	8.6	27.3	10.4
Work matches hobby interest	41.5	35.3	30.5	27.4	45.3	37.4
Good income start/few years	18.7	8.4	9.6	6.1	12.9	3.9
Job Security	15.8	6.2	10.5	0.7	12.4	3.9
Important & interesting work	2.2	1.5	-	3.1	6.7	-
Freedom to make own decisions	10.8	3.3	10.8	5.3	11.0	0.6
Opportunity for promotion in long run	16.7	7.0	5.9	4.4	15.0	5.2
Working with friendly people	7.9	3.8	9.2	4.2	11.3	3.2

[a] Source is NLS Base-Year and Second Follow-Up; questions not asked on First Follow-Up.

Table 4.11

Job Satisfaction[a] Over Time[b]

How satisfied were you with the following aspects of this job?	Army Status					
	Never		2 Yrs. or Less		More Than 2 Yrs.	
	1st Follow-Up	2nd Follow-Up	1st Follow-Up	2nd Follow-Up	1st Follow-Up	2nd Follow-Up
VERY SATISFIED						
Pay and fringe benefits	20.4	22.6	9.3	13.6	20.1	34.6
Importance and challenge	19.0	21.2	17.6	18.9	14.9	17.7
Working conditions	23.2	25.5	10.3	3.6	7.4	19.2
Opportunity for advancement & promotion with employer	18.2	19.0	10.3	20.4	9.0	24.3
Opportunity for advancement in field	19.1	19.8	10.3	4.9	8.1	28.7
Security and permanence	21.8	27.9	29.5	29.0	18.4	48.2
Opportunity for developing new skills	23.0	25.2	32.1	8.8	16.8	29.1
Job as a whole	24.9	26.8	9.0	16.1	18.5	12.9
SATISFIED						
Pay and fringe benefits	50.4	53.4	61.1	57.5	42.1	29.1
Importance and challenge	50.8	50.5	46.7	55.3	42.9	49.5
Working conditions	58.8	56.6	38.7	42.4	53.4	42.8
Opportunity for advancement promotion with employer	42.8	43.6	49.8	31.3	38.3	48.3
Opportunity for advancement in field	43.0	45.3	58.1	53.5	41.1	35.5
Security and permanence	53.7	51.5	40.0	59.9	45.3	30.0
Opportunity for developing new skills	43.3	45.0	30.3	46.6	32.3	36.7
Job as a whole	55.0	57.2	71.8	49.2	40.5	60.7
DISSATISFIED						
Pay and fringe benefits	21.0	18.2	19.9	21.4	23.3	29.3
Importance and challenge	22.3	21.0	35.6	25.8	16.6	17.9
Working conditions	13.1	13.9	36.9	50.2	23.7	24.5
Opportunity for advancement and promotion with employer	27.6	26.5	28.3	40.6	38.0	19.5
Opportunity for advancement in field	27.1	25.4	21.3	20.3	29.4	15.7
Security and permanence	17.5	14.5	22.7	11.1	24.7	7.8
Opportunity for developing new skills	24.0	22.0	24.7	30.3	27.2	17.7
Job as a whole	14.1	12.3	10.5	24.2	20.3	7.6
VERY DISSATISFIED						
Pay and fringe benefits	8.3	5.8	9.7	7.5	14.6	7.0
Importance and challenge	7.8	7.3	-	-	25.6	14.9
Working conditions	4.8	4.0	14.2	13.8	15.6	13.6
Opportunity for advancement and promotion with employer	11.4	10.8	11.5	7.7	14.7	7.9
Opportunity for advancement in field	10.7	9.5	10.3	21.3	21.3	20.1
Security and permanence	6.9	6.1	-	-	11.6	14.0
Opportunity for developing new skills	9.7	7.8	12.9	14.3	23.8	16.5
Job as a whole	6.0	3.7	8.7	10.4	20.6	18.8

[a] Includes full-time jobs, part-time jobs, apprenticeships, on-the-job training, military service, and so on.

[b] Source is NLS First and Second Follow-Up; question did not appear on Base-year survey.

Table 4.12

Self Appraisal Attitude
Changes Over Time[a]

Characteristic	Response	Never			2 Yrs or Less			More Than 2 Yrs		
		BY	1FU	2FU	BY	1FU	2FU	BY	1FU	2FU
Self Appraisal	I take a positive attitude toward myself									
	Agree strongly	25.5	32.7	34.5	28.2	37.8	53.4	25.0	41.8	48.9
	Agree	52.0	57.6	55.6	47.0	54.3	36.7	53.2	49.2	43.2
	Disagree	11.1	5.0	11.1	11.8	2.8	7.0	6.3	4.0	6.9
	Disagree strongly	1.6	0.6	0.7	0	0	0	1.8	1.8	1.8
	No opinion	9.7	4.1	4.1	13.5	5.1	3.0	13.7	3.1	1.0
	Good luck is more important than hard work for success									
	Agree strongly	1.7	1.7	2.1	2.8	-	0.5	1.9	2.9	2.6
	Agree	6.6	6.3	7.2	2.9	4.8	11.6	9.1	6.9	7.1
	Disagree	47.8	50.3	50.2	47.6	55.5	46.5	47.1	49.3	52.4
	Disagree strongly	39.1	37.4	35.1	36.2	33.6	39.5	38.3	37.1	34.8
	No opinion	4.8	4.4	5.5	9.6	6.1	1.9	3.4	3.8	3.0
	I feel I am a person of worth, on an equal plane with others									
	Agree strongly	30.0	37.9	44.7	29.4	50.6	53.6	34.7	44.7	50.8
	Agree	57.6	55.7	49.7	57.5	45.5	40.6	52.4	50.1	42.6
	Disagree	5.2	3.2	2.8	7.3	0.6	4.8	6.3	3.3	3.4
	Disagree strongly	1.0	0.4	0.5	0.4	-	-	-	0.4	-
	No Opinion	6.2	2.9	2.3	5.3	3.3	0.9	6.5	1.5	3.1
	I am able to do things as well as most other people									
	Agree strongly	25.4	31.7	38.1	18.1	39.6	52.6	35.3	47.3	49.3
	Agree	61.8	61.3	55.4	68.0	59.8	44.0	57.2	47.6	45.0
	Disagree	7.2	3.9	3.5	7.7	0.5	3.4	3.1	3.1	2.7
	Disagree strongly	0.8	0.3	0.4	-	-	-	-	-	0.5
	No opinion	4.9	2.8	2.6	6.5	-	5.8	4.5	2.9	2.5
	Every time I try to get ahead, something or somebody stops me									
	Agree strongly	4.0	2.7	3.7	3.6	4.6	5.8	9.6	3.6	7.8
	Agree	14.6	10.9	11.5	27.9	12.5	9.4	14.4	13.9	8.4
	Disagree	57.7	58.9	55.3	40.5	53.3	62.4	54.1	66.9	58.5
	Disagree strongly	15.4	20.1	22.2	12.5	17.3	15.9	15.4	9.9	18.8
	No opinion	8.3	7.5	7.5	15.4	12.4	6.5	6.3	5.6	6.3
	Planning only makes a person unhappy, since plans hardly every work out anyway									
	Agree strongly	4.8	3.1	3.3	5.2	-	5.9	10.4	5.3	6.7
	Agree	13.3	10.3	10.3	9.1	12.6	10.8	8.1	10.4	10.9
	Disagree	49.1	51.5	49.6	44.2	56.3	49.0	50.1	50.6	45.0
	Disagree strongly	27.3	29.2	30.8	28.9	26.5	31.8	26.4	24.7	30.6
	No opinion	5.6	5.9	6.1	12.6	4.6	2.4	5.0	9.0	6.8
	People who accept their condition in life are happier than those who try to change things									
	Agree strongly	9.7	6.8	6.3	6.6	6.0	8.2	9.1	7.8	10.2
	Agree	21.3	18.4	16.6	20.3	18.3	13.8	26.0	15.3	15.9
	Disagree	39.3	44.0	43.5	26.8	44.1	38.2	28.5	42.9	42.6
	Disagree strongly	21.7	20.2	23.4	30.6	20.9	28.5	29.8	25.0	23.4
	No opinion	8.2	10.7	10.3	15.7	10.8	11.3	6.5	8.9	7.9
	On the whole, I'm satisfied with myself									
	Agree strongly	17.8	20.8	27.3	18.5	26.9	35.2	30.7	25.0	23.5
	Agree	52.0	57.6	57.1	47.2	47.2	52.5	37.7	49.3	61.1
	Disagree	19.3	14.3	10.5	22.4	16.3	6.9	17.9	16.7	9.6
	Disagree strongly	3.9	2.2	1.6	4.0	3.4	3.2	0.9	2.1	1.0
	No opinion	7.1	5.0	3.7	7.7	6.1	2.2	12.7	6.7	4.6

[a]BY - NLS Base Year Survey
1FU - First Follow-Up Survey
2FU - Second Follow-Up Survey

positive shift in attributing importance to job factors; (2) Army "More Than 2 Yrs." entrants display an extremely higher positive shift in job satisfaction (Table 4.11) than non-entrants (though beginning at a much lower level)--while Army "2 Yrs. or Less" entrants exhibit an unrepresentative *downward* shift in job satisfaction; and (3) the self-esteem of Army entrants (Table 4.12) increases at a greater rate than non-entrants.

These results in attitude changes are supported in part by previous research. As Barber (in Ambrose and Barber, eds., 1972) observes, on average the military entrant develops improved self-esteem and personal adjustment during basic training, but at the same time develops negative opinions about the military job structure. The generally unrepresentative change among the "2 Yrs. or Less" group toward job dissatisfaction might be attributable, therefore, to the effects of early training. Conversely, the highly unrepresentative increase in satisfaction among the "More Than 2 Yrs." group might be an effect of post-training reorientation to work values and/or a factor related to career orientation. In any case, some process or interaction of elements is occurring to produce the unrepresentative nature of attitude change among Army entrants.

Conclusion

A general conclusion regarding comparisons of attitudes and attitude changes is difficult to formulate for several reasons. An evaluation of the attitudinal data within this section might lead to the following observations: (1) There are apparent differences between Army and civilian groups, but these differences are not large; (2) where differences in attitudes toward self, environment, and the political system do occur, Army entrants are usually overrepresentative in positive expression; and (3) an unrepresentative degree of attitude change (usually from negative to positive) is characteristic among those who enter the Army, with the greatest degree of change occurring in the responses of those with longer periods of time in service.

In order to translate these observations into statements regarding the objectives of representation, the relationship between attitudes and behavior must first be defined--or, the relationship between *expressions* of attitudes and the personal motivations for attributing importance to these attitudes must be *at least* explored. For example, a first glance at the attributed importance of "quality of life" factors (Figure 4.3, Table 4.3) by the "2 Yrs. or Less" group of Army entrants might lead to the conclusion that, although unrepresentative of the civilian standard, this group actually possesses a higher regard for the well-being of personal and community life. Similarly, the overrepresentative orientation of Army entrants toward work, community, family, and political values could be interpreted as evidence that service in the Army acts favorably on the development of positive social attitudes.

When the connection is made between attitudes and motivation, however, a different image may be created. These statements of attitudes, for example, could be guided by the complex of an individual's value system--i.e., the "enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance" (Rokeach, 1973, p. 5). As such, overrepresentative responses by Army entrants regarding orientation toward societal values could be interpreted as desirable. It is also possible that responses could be related to an individual's hierarchy of needs or values, in a way suggested by Abraham Maslow (in Motivation and Personality) and Clare Graves. As such, highly positive responses to value-oriented questions could be interpreted as evidence of highly unfulfilled needs, and, therefore, *un*desirable. Or, statements by Army entrants may be somehow affected by the processes of cognitive dissonance and be unreliable as measures, in themselves, of true feelings.

In any case, without a good deal more empirical study, these measures are only indications of attitudes. As *indicators*, nevertheless, they do not support fears that the Army attracts and breeds malcontents and mercenaries--or that there is any particularly distinctive, isolated, or alienated dominance of opinion among Army entrants. It should also be noted, however, that these individuals are similar with regard to *age* and *education*--two often powerful predictors of individual attitudes (cf. Bachman and Blair, 1975a, 1975b)--and that the total population of Army entrants is not represented in this analysis.

5. EVALUATION OF THE ARMED SERVICES VOCATIONAL APTITUDE BATTERY

Army Regulation 601-222: Armed Forces Vocational Testing Program states that the purpose of the Armed Services Vocational Aptitude Battery (ASVAB) is "to help determine the suitability and eligibility of individuals for military service, and to assist in determining the military and civilian vocational fields best suited to the current aptitudes of the individual." The ASVAB High School Testing Program, now referred to as the DoD Institutional ASVAB Testing Program, is also a *recruiting tool* which provides a service of prospective leads on over 500,000 high school seniors who are considered qualified for enlistment. During FY1975, a total of 1,297,458 students (Grades 9-12) were tested. (DoD goals for FY75 were 1.6 million.) For FY1976, The Department of Defense increased its testing goals to 2 million students (but as of the third quarter, only 56.3% of the objective had been tested).

With the advent of common Service-wide composites based on high school ASVAB scores, it becomes apparent that enlistments determined by high school ASVAB scores should consequently increase--thereby providing a possible source of new information on the representational relationship between Army entrants and the age-eligible civilian population. According to USAREC, the number of secondary schools in the United States is approximately 20,299 (H.E.W. estimates of secondary schools range from 18,000 to 23,000). And, The American Council on Junior and Community Colleges estimates that there are between 900 to 1100 2-year colleges. These figures vary because of school openings and closings, consolidations, and expansions; also, vo-tech, Job Corps, and parochial schools are not included. During the first two quarters of FY1976, 12,993 schools were tested, with a National average of 78.8 students per session. In a memorandum specifying the AFEES manpower requirements for the centralized management of ASVAB testing (Memorandum for the Assistant Secretaries of the Military Departments for Manpower and Reserve Affairs, 15 July 1975), the Assistant Secretary of Defense for Manpower and Reserve Affairs indicated that a target of 20,575 schools (with a re-test factor of 1.07) was set for the FY76-77 time frame. It becomes evident from these high school testing results and objectives that--in addition to the stated objectives of the ASVAB testing program--there is emerging a substantial data base and possibly representative sample on the military-defined quality of the general age-eligible population and its relation to demographic variables.

Results This evaluation of the ASVAB is focused on gaining a better understanding of the nature of the ASVAB sample--and determining, through the examination of its results, whether that sample may be considered a valid measure of the population. The ASVAB data used in this study are those of the 1974-1975 (i.e., FY75) school year, the most recent data available. During the 1974-1975 school year, approximately 575,000 high school seniors were tested, representing 13,600 high schools. The primary parameters used for these data are: (1) distributions of the tested high school seniors by future plans; (2) the extent of participation of high school seniors in the ASVAB program; and (3) the mean equivalent AFQT percentile scores of high school seniors on the ASVAB. All tabular data are based on specially-designed crosstabulations provided by the Manpower Research and Data Analysis Center (MARDAC) of the Office of the Assistant Secretary of Defense for Manpower Reserve Affairs (OASD[M&RA]).

Distribution by Future Plans

Six classifications by future plans were used: (1) 4-years of college; (2) 2-years of college; (3) Vocational or technical training; (4) Military; (5) Working; and (6) Undecided. The numerical distributions by future plans are presented by state, race, and sex in Tables 5.15 through 5.18. These distributions appear in condensed form--by geographic areas, race, and sex--in Tables 5.1 and 5.2. Percent distributions, as presented in Tables 5.1 and 5.2 appear for male high school seniors in Table 5.3 and for female high school seniors in Table 5.4.

There are several ways to determine whether the results of this ASVAB tabulation give an accurate picture of high school seniors. One way is to relate "future plans" to actual behavior (as measured by military, educational, and work statistics on 1974-1975 high school seniors). Since plans may be expected to change as a result of exogenous factors (and "plans" are not limited by time), this does not appear to be a reliable determinant of the accuracy of ASVAB data. Another method would involve the comparison of these data with the data of other surveys.

In comparing the military plans of the ASVAB sample of male high school seniors with the results of the demographic evaluation (i.e., the actual patterns of enlistment by geographic region as presented in Tables 3.12 through 3.15), it is seen that the military plans (by region) of the ASVAB sample are not distributed in a *relatively* similar pattern (between regions) as are actual non-prior service Army accessions. (The distribution of plans for Black males, however, is not as dissimilar from actual accession statistics.) Since "military" also includes all the Services, this comparison may not give an accurate reflection of the ASVAB.

A comparison of the ASVAB results on the future plans of high school seniors (Class of 1975) with the NLS results (Department of H.E.W., NCES, 1976) on the future plans of high school seniors (Class of 1972) shows the ASVAB sample to have a *much higher propensity for enlistment in the military* than the NLS sample. Differences are seen in all of the totals by sex, region, and race. However, the comparison of NLS and ASVAB distributions by all other future plans (except "work," which appears *substantially* lower in the ASVAB than in the NLS) shows general similarity in the South and the West. In the Northeast, where the greatest discrepancy in enlistment propensity occurs(i.e., greater than 10 percent difference), and the North Central region, ASVAB results by future plans do not appear at all similar to NLS results.

Table 5.1

Male High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): by Future Plans, Geographic Area, and Race

(School Year 1974-1975)[a]

Geographic Area	Distribution by Future Plans							
	Total		4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
	Number	Percent						
			Total					
United States: Total	314,354	100.0	96,458	22,872	25,071	31,186	47,881	90,886
Northeast	45,652	14.5	13,504	3,332	2,613	5,562	7,324	13,317
New England	13,770	4.4	3,842	902	949	1,827	2,000	4,250
Middle Atlantic	31,882	10.1	9,662	2,430	1,664	3,735	5,324	9,067
North Central	74,733	23.8	19,606	4,583	7,099	6,396	13,254	23,795
East North Central	46,803	14.9	12,667	2,952	3,889	4,282	8,137	14,876
West North Central	27,930	8.9	6,939	1,631	3,210	2,114	5,117	8,919
South	153,798	48.9	51,271	9,703	12,580	14,700	22,990	42,554
South Atlantic	60,681	19.3	19,136	4,127	5,250	7,404	7,624	17,080
East South Central	43,483	13.8	14,315	2,360	3,775	3,445	7,088	12,500
West South Central	49,634	15.8	17,760	5,216	3,555	3,851	8,278	12,974
West	40,171	12.8	12,077	5,254	2,779	6,101	12,998	11,220
Mountain	15,010	4.8	4,382	1,180	1,551	3,915	7,903	4,381
Pacific	25,161	8.0	7,695	4,074	1,228	2,186	5,095	6,639
			Caucasian & Other (~Non-Black)					
United States: Total	275,211	100.0	85,835	20,330	21,932	23,859	43,164	80,091
Northeast	43,586	15.8	12,812	3,144	2,504	5,182	7,124	12,820
New England	13,295	4.8	3,701	866	922	1,729	1,945	4,132
Middle Atlantic	30,291	11.0	9,111	2,278	1,582	3,453	5,179	8,688
North Central	71,431	26.0	18,395	4,310	6,872	5,916	12,521	23,017
East North Central	44,113	16.0	11,658	2,723	3,696	3,891	7,887	14,258
West North Central	27,318	10.0	6,737	1,587	3,176	2,025	5,034	8,759
South	121,088	44.0	42,927	7,785	9,826	8,418	18,883	33,249
South Atlantic	45,293	16.5	15,643	3,240	3,853	3,923	5,967	12,667
East South Central	34,301	12.5	11,889	1,842	2,926	1,916	5,853	9,875
West South Central	41,494	15.0	15,395	2,703	3,047	2,579	7,063	10,707
West	39,106	14.2	11,701	5,091	2,730	4,343	4,236	11,005
Mountain	14,842	5.4	4,316	1,164	1,547	1,508	1,968	4,339
Pacific	24,264	8.8	7,385	3,927	1,183	2,835	2,268	6,666
			Black					
United States: Total	39,143	100.0	10,623	2,542	3,139	7,327	4,717	10,795
Northeast	2,066	5.3	692	188	109	380	200	497
New England	475	1.2	141	36	27	98	55	118
Middle Atlantic	1,591	4.1	551	152	82	282	145	379
North Central	3,302	8.4	1,211	273	227	480	333	778
East North Central	2,690	6.8	1,009	229	193	391	250	618
West North Central	612	1.6	202	44	34	89	83	160
South	32,710	83.6	8,344	1,918	2,754	6,282	4,107	9,305
South Atlantic	15,388	39.3	3,553	887	1,397	3,481	1,657	4,413
East South Central	9,182	23.5	2,426	518	849	1,529	1,235	2,625
West South Central	8,140	20.8	2,365	513	508	1,272	1,215	2,267
West	1,065	2.7	376	163	49	185	77	215
Mountain	168	0.4	66	16	4	24	16	42
Pacific	897	2.3	310	147	45	161	61	173

[a] Derived from Tbls.5.15-5.16. States within each geographic area are as follows: New England--Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut; Middle Atlantic--New York, New Jersey, Pennsylvania; East North Central--Ohio, Indiana, Illinois, Michigan, Wisconsin; West North Central--Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas; South Atlantic--Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida; East South Central--Kentucky, Tennessee, Alabama, Mississippi; West South Central--Arkansas, Louisiana, Oklahoma, Texas; Mountain--Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada; Pacific--Alaska, California, Hawaii, Oregon, Washington (Bureau of the Census).

Table 5.2

Female High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): by Future Plans, Geographic Area, and Race (School Year 1974-1975)[a]

Geographic Area	Distribution by Future Plans							
	Total		4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
	Number	Percent						
				Total				
United States: Total	262,341	100.0	80,293	32,088	16,976	12,565	41,611	78,808
Northeast	31,433	12.0	9,312	4,341	1,150	2,017	5,195	9,348
New England	9,832	3.8	3,028	1,519	392	628	1,376	2,809
Middle Atlantic	21,601	18.2	6,284	2,822	758	1,459	3,819	6,459
North Central	59,408	22.6	16,489	6,021	4,544	2,667	10,393	19,294
East North Central	36,832	14.0	10,044	3,918	2,342	1,784	6,626	12,118
West North Central	22,576	8.6	6,445	2,103	2,202	883	3,767	7,176
South	138,902	53.0	44,472	15,776	9,496	5,948	22,544	40,866
South Atlantic	54,415	10.8	16,586	6,382	4,718	2,923	8,096	15,710
East South Central	41,018	15.6	12,910	4,369	2,488	1,568	7,082	12,601
West South Central	43,469	16.6	14,976	4,825	2,290	1,457	7,366	12,555
West	32,598	12.4	10,020	6,150	1,786	1,863	3,479	9,300
Mountain	12,328	4.7	3,817	1,722	913	618	1,519	3,739
Pacific	20,270	7.7	6,203	4,428	873	1,245	1,960	5,561
				Caucasian & Other (~ Non-Black)				
United States: Total	221,757	100.0	67,906	27,397	13,560	8,508	36,795	67,591
Northeast	29,767	13.4	8,751	4,125	1,098	1,804	5,033	8,956
New England	9,392	4.2	2,897	1,461	382	567	1,326	2,759
Middle Atlantic	20,375	9.2	5,854	2,664	716	1,237	3,707	6,197
North Central	56,119	25.3	15,231	5,598	4,364	2,360	10,024	18,542
East North Central	34,199	15.4	9,011	3,567	2,206	1,539	6,354	11,522
West North Central	21,920	9.9	6,220	2,031	2,158	821	3,670	7,020
South	104,308	47.1	34,304	11,735	6,354	2,596	18,321	30,998
South Atlantic	38,252	17.3	12,283	4,542	2,981	1,217	6,197	11,032
East South Central	30,588	13.8	9,736	3,229	1,667	590	5,744	9,622
West South Central	35,468	16.0	12,285	3,964	1,706	789	6,380	10,344
West	31,563	14.2	9,620	5,939	1,744	1,748	3,417	9,095
Mountain	12,182	5.5	3,765	1,703	906	601	1,504	3,703
Pacific	19,381	8.7	5,855	4,236	838	1,147	1,913	5,392
				Black				
United States: Total	40,584	100.0	12,387	4,691	3,416	4,057	4,816	11,217
Northeast	1,666	4.1	561	216	52	283	162	392
New England	440	1.1	131	58	10	61	50	130
Middle Atlantic	1,226	3.0	430	158	42	222	112	262
North Central	3,289	8.1	1,258	423	180	307	369	752
East North Central	2,633	6.5	1.033	351	136	245	272	596
West North Central	656	1.6	225	72	44	62	97	156
South	34,594	85.2	10,168	3,841	3,142	3,352	4,223	9,868
South Atlantic	16,163	39.8	4,303	1,840	1,737	1,706	1,899	4,678
East South Central	10,430	25.7	3,174	1,140	821	978	1,338	2,979
West South Central	8,001	19.7	2,691	861	584	668	986	2,211
West	1,035	2.6	400	211	42	115	62	205
Mountain	146	0.4	52	19	7	17	15	36
Pacific	889	2.2	348	192	35	98	47	169

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[a] Derived from Tables 5.15-5.18. See footnote to Table 5.1 for states by geographic area.

Table 5.3

Male High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): by Future Plans, Geographic Area, and Race (School Year 1974-1975)[a]

Geographic Area	Percent Distribution by Future Plans					
	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
			Caucasian & Other (~Non-Black)			
United States: Total	31.2	7.4	8.0	8.7	15.7	29.0
Northeast	29.4	7.2	5.8	11.9	16.3	29.4
New England	27.9	6.5	6.9	13.0	14.6	31.1
Middle Atlantic	30.1	7.5	5.2	11.4	17.1	28.7
North Central	25.8	6.0	9.6	8.3	18.1	32.2
East North Central	26.4	6.2	8.4	8.8	17.9	32.3
West North Central	24.7	5.8	11.6	7.4	18.4	32.1
South	35.5	6.4	8.1	7.0	15.6	27.4
South Atlantic	34.5	7.1	8.5	8.7	13.2	28.0
East South Central	34.6	5.4	8.5	5.6	17.1	28.8
West South Central	37.1	6.5	7.4	6.2	17.0	25.8
West	29.9	13.0	7.0	11.1	10.8	28.2
Mountain	29.1	7.8	10.4	10.1	13.3	29.3
Pacific	30.4	16.2	4.9	11.7	9.3	27.5
			Black			
United States: Total	27.1	6.5	8.0	18.7	12.1	27.6
Northeast	33.5	9.1	5.3	18.4	9.7	24.0
New England	29.7	7.6	5.7	20.6	11.6	24.8
Middle Atlantic	34.6	9.6	5.2	17.7	9.1	23.8
North Central	36.7	8.3	6.9	14.5	10.0	23.6
East North Central	37.5	8.5	7.2	14.5	9.3	23.0
West North Central	33.0	7.2	5.6	14.5	13.6	26.1
South	25.5	5.9	8.4	19.2	12.6	28.4
South Atlantic	23.1	5.8	9.1	22.6	10.8	28.6
East South Central	26.4	5.6	9.2	16.7	13.5	28.6
West South Central	29.1	6.3	6.2	15.6	14.9	27.9
West	35.3	15.3	4.6	17.4	7.2	20.2
Mountain	39.3	9.5	2.4	14.3	9.5	25.0
Pacific	34.6	16.4	5.0	17.9	6.8	19.3

Source: Derived from Table 5.1. Sum of each row = 100 percent.

Table 5.4

Female High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): by Future Plans, Geographic Area, and Race

(School Year 1974-1975)[a]

Geographic Area	Percent Distribution by Future Plans					
	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
			Caucasian & Other (~ Non-Black)			
United States: Total	30.6	12.4	6.1	3.8	16.6	30.5
Northeast	29.4	13.8	3.7	6.1	16.9	30.1
New England	30.8	15.6	4.1	6.0	14.1	29.4
Middle Atlantic	28.7	13.1	3.5	6.1	18.2	30.4
North Central	27.1	10.0	7.8	4.2	17.9	33.0
East North Central	26.3	10.4	6.5	4.5	18.6	33.7
West North Central	28.4	9.3	9.9	3.7	16.7	32.0
South	32.9	11.2	6.1	2.5	17.6	29.7
South Atlantic	32.1	11.9	7.8	3.1	16.2	28.9
East South Central	31.8	10.6	5.4	1.9	18.8	31.5
West South Central	34.6	11.2	4.8	2.2	18.0	29.2
West	30.5	18.8	5.5	5.6	10.8	28.8
Mountain	30.9	14.0	7.4	4.9	12.4	30.4
Pacific	30.2	21.9	4.3	5.9	9.9	27.8
			Black			
United States: Total	30.5	11.6	8.4	10.0	11.9	27.6
Northeast	33.7	13.0	3.1	17.0	9.7	23.5
New England	29.8	13.1	2.3	13.9	11.4	29.5
Middle Atlantic	35.1	12.9	3.4	18.1	9.1	21.4
North Central	38.2	12.9	5.5	9.3	11.2	22.9
East North Central	39.2	13.3	5.2	9.3	10.3	22.7
West North Central	34.3	11.0	6.7	9.4	14.8	23.8
South	29.4	11.1	9.1	9.7	12.2	28.5
South Atlantic	26.6	11.4	10.7	10.6	11.7	29.0
East South Central	30.4	10.9	7.9	9.4	12.8	28.6
West South Central	33.6	10.8	7.3	8.4	12.3	27.6
West	38.6	20.4	4.1	11.1	6.0	19.8
Mountain	35.6	13.0	4.8	11.6	10.3	24.7
Pacific	39.2	21.6	3.9	11.0	5.3	19.0

Source: Derived from Table 5.3. Sum of each row = 100 percent.

A comparison of ASVAB results by future plans with the results of the Youth Attitude Tracking Study (Market Facts, Inc., 1976), Gilbert Youth Surveys (MARDAC, 1975), and The Opinion Research Corporation (ORC) survey of attitudes (ORC, 1973) shows the degree of favorable attitudes toward military enlistment among ASVAB participants to be less divergent from the general population. Yet, on the basis of actual *future plans*, it would appear that the ASVAB is disproportionately represented by individuals who are seriously considering the military as an alternate activity after graduation from high school.

Extent of Participation

As indicated in Tables 5.5 and 5.6, approximately 22 percent of all male high school seniors took the ASVAB test--in itself, a reasonably high percentage. The corresponding percent for female high school seniors was 18.1. The data reveal, however, *exceptionally large* geographic differences in the extent of ASVAB participation by all high school seniors. These differences are especially apparent in Table 5.5, in which the states are arrayed on a regressive scale by the percent of high school seniors tested with ASVAB and by sex. These differences by states range for male seniors from as high as 68.3 percent in Mississippi to as low as 6.2 percent in the District of Columbia--and from 65.0 percent to 3.6 percent for female seniors in the same states.

From the results presented in Table 5.6, it can be seen that the greatest participation occurred among states in the South, and the least amount of participation among states in the Northeast. It is interesting to observe that the traditional strongholds of military recruitment are in rural areas and the South--while the military has historically been most underrepresented by volunteer enlistments in large cities and, especially, the Northeast. This might tend to suggest that the voluntary testing program administered through ASVAB in the high

Table 5.5

Extent of Participation: Percent of High-School Seniors Tested with ASVAB, by State and Sex--Arrayed on a Regressive Scale

(School Year 1974-1975)

Percent Tested	Male	Female
79.0-65.1	Mississippi (68.3)	
65.0-60.1	Alabama (61.1)	Mississippi (65.0)
60.0-55.1	--	Alabama (56.1)
55.0-50.1	--	--
50.0-45.1	Louisiana (49.4); Arkansas (46.7)	--
45.0-40.1	South Dakota (45.0); Tennessee (44.6); Georgia (43.7); Kentucky (40.6)	Arkansas (41.3); South Dakota (41.1)
40.0-35.1	South Carolina (40.0); North Dakota (37.1); North Carolina (35.5); Oklahoma (35.4); West Virginia (35.3); Montana (35.3)	Tennessee (39.4); Georgia (37.4); Louisiana (35.6)
35.0-30.1	New Mexico (33.8); Hawaii(31.9); Texas (30.8)	North Dakota (33.9); Kentucky (33.7); South Carolina (33.5); Oklahoma (33.0); New Mexico (32.6); North Carolina (31.6)
30.0-25.1	Missouri (29.1); Wyoming (28.9); Nebraska (28.8); Virginia (28.5) Idaho (26.9)	West Virginia (28.9); Texas (27.7); Montana (27.6); Missouri (26.5)
25.0-20.1	Florida (24.3); Pennsylvania (23.0); Maine (22.0); Alaska (21.2); Indiana (20.2)	Virginia (24.9); Idaho (22.7); Nebraska (21.8); Florida (20.8); New Hampshire (20.5); Wyoming (20.3); Hawaii (20.1)
20.0-15.1	New Hampshire (19.9); Kansas (19.8); Vermont (19.7); Rhode Island (18.8); Delaware (18.8); Arizona (18.3); Washington (18.2); Wisconsin (17.4); Illinois (17.3); Connecticut (16.1); Massachusetts (15.8); Nevada (15.2)	Alaska (18.3); Pennsylvania (16.7); Maine (16.7); Arizona (16.5); Delaware (16.2); Indiana (16.0)
15.0-10.1	Ohio (14.9); Iowa (14.8); Maryland (14.6); Colorado (14.3); Oregon (14.1); Michigan (13.2); Utah (12.1); New Jersey (11.9); California (11.1); Minnesota (11.0)	Washington (14.5); Kansas (13.9); Wisconsin (13.5); Rhode Island (13.3); Nevada (13.1); Connecticut (12.9); Illinois (12.8); Vermont (12.6); Maryland (11.6); Ohio (11.2); Oregon (11.1); Michigan (10.6); Colorado (10.2)
10.0-5.1	New York (7.3); District of Columbia (6.2)	Massachusetts (9.3); Iowa (9.1); California (8.9); Minnesota (8.5); New Jersey (8.1); Utah (7.8)
5.0-0.1	--	New York (4.2); District of Columbia (3.6)
United States: Total	22.2	18.1

Source: Derived on the basis of a. Tables 5.15-5.18 ; b. ASVAB Summary Data (1 July 1974-30 June 1975), prepared by Plan/Management Analysis Branch, Armed Forces Vocational Testing Group, Randolph Air Force Base, 31 July 1975, and c. Digest of Educational Statistics 1974 Edition, Table 67, U.S. Department of Health, Education, and Welfare/ Education Division, 1975.

Table 5.6

Percent of High-School Seniors Tested with ASVAB, by Geographic Area and Sex

(School Year 1974-1975)[a]

Geographic Area	Percent Tested with ASVAB, by Sex	
	Male	Female
UNITED STATES: Total	22.2	18.1
Northeast	14.5	9.8
New England	17.1	12.0
Middle Atlantic	13.6	9.1
North Central	17.8	14.0
East North Central	16.1	12.4
West North Central	21.8	17.7
South	36.5	31.7
South Atlantic	30.2	25.8
East South Central	52.0	46.9
West South Central	36.3	31.3
West	15.3	12.1
Mountain	20.9	17.2
Pacific	13.1	10.3

[a] See footnotes to Table 5.1--for states by geographic area, and Table 5.5--for corresponding data by state.

schools attracts the greater participation of those who are otherwise *favorably predisposed toward the military* and/or representative of regions in which there is *greater acceptance* of the military. This hypothesis would be difficult to test without the inclusion of some additional measures in the data base, since future plans (Tables 5.1, 5.2, 5.3)--though indicative of a generally unrepresentative level of favorable attitudes toward the military--also show participation by many individuals interested in activities other than military service.

Nevertheless, when these data are compared with the data in Tables 5.1, 5.2, and 5.3, the above hypothesis regarding the attitudes of participants is supported. For example, although seniors in the Northeast show the greatest propensity toward enlistment (and probably the greatest *difference* from the propensity of the total population of high school seniors in that area), their actual participation in ASVAB testing is the lowest of all regions. The inference here is that, among seniors in the Northeast who participate in ASVAB testing, there is a very disproportionately favorable inclination toward the military. And, while the distribution of individuals by future plans is probably most similar in the South (although still discrepant), it is in the South where ASVAB participation is highest--and, where many sociologists believe attitudes toward the military in general are much more approving (cf. Janowitz, 1975a).

Mean Equivalent AFQT Scores

ASVAB form II was used for these tests. Mean equivalent AFQT scores were derived from the following ASVAB content areas: Word Knowledge, Arithmetic Reasoning, and Space Perception. These mean equivalent AFQT scores are presented in Tables 5.7 through 5.14, by state, geographic area, selected future plans ("4-years of college" and "military"), and sex. From a representational perspective, these data clearly indicate *most conspicuous race differences*, and *geographic differences within*

Table 5.7

Male High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by Future Plans, Geographic Area, and Race

(School Year 1974-1975)

Geographic Area[a]	Mean Equivalent AFQT Percentile Score by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
			Caucasian & Other (~ Non-Black)				
United States: Total	54.9	67.4	53.4	50.1	50.9	41.8	51.4
Northeast	57.8	70.3	56.8	53.3	53.3	45.9	54.8
New England	57.7	70.5	57.3	54.3	53.9	46.2	54.1
Middle Atlantic	57.8	70.2	56.6	52.7	53.0	45.8	55.1
North Central	57.3	71.2	56.7	55.7	53.1	45.2	54.8
East North Central	56.9	70.9	56.0	55.3	52.6	44.2	54.1
West North Central	58.1	71.6	58.0	56.2	54.0	46.6	55.9
South	51.5	64.3	49.1	44.6	47.5	37.2	46.8
South Atlantic	53.2	66.3	51.2	45.5	48.3	37.9	48.7
East South Central	48.9	62.1	46.3	42.6	45.9	35.2	44.2
West South Central	51.8	63.9	48.5	45.4	47.6	38.4	47.1
West	57.5	69.4	55.0	52.7	51.9	45.0	54.3
Mountain	56.1	68.0	53.0	51.7	52.2	45.0	53.1
Pacific	58.3	70.1	55.6	53.9	51.7	45.0	55.0
			Black				
United States: Total	24.4	33.2	23.0	21.8	22.3	15.9	22.1
Northeast	32.7	40.0	28.9	31.7	29.1	24.4	30.4
New England	32.5	39.3	27.5	31.8	31.7	25.0	30.2
Middle Atlantic	32.8	40.2	29.3	30.7	28.2	24.2	30.5
North Central	32.3	37.4	27.9	31.0	30.1	23.7	31.0
East North Central	31.7	36.3	27.5	30.9	29.8	24.0	30.4
West North Central	34.9	43.4	30.2	31.1	33.3	23.0	33.5
South	22.8	31.6	21.2	20.4	21.2	14.8	20.7
South Atlantic	23.5	33.2	22.0	20.4	21.0	15.5	21.8
East South Central	21.8	29.2	19.7	20.0	20.7	14.0	20.1
West South Central	23.3	31.4	21.2	21.1	22.2	14.5	21.0
West	34.7	42.6	29.9	28.0	29.3	22.4	32.7
Mountain	37.9	44.7	26.5	- -	29.8	26.5	32.5
Pacific	34.1	42.2	30.3	28.0	29.2	21.3	31.5

Source: Derived from tabulations by MARDAC. -- signify no cases or less than 25 cases reported.

[a] See footnote to Table 5.1 for states by geographic area.

Table 5.8

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale

(School Year 1974-1975)[a]

Sex: Male		Future Plans: Total
Mean AFQT Percentile Score	Caucasian & Other (~ Non-Black)	Black
65.0-60.1	Montana (62.8); Washington (61.8); Iowa (61.5); Wisconsin (61.4); Alaska (61.4); Wyoming (61.1); Rhode Island (60.8); Oregon (60.5)	
60.0-55.1	Idaho (60.0); Minnesota (59.8); Nebraska (59.8); New Hampshire (59.6); Utah (58.9); Maryland (58.6); Kansas (58.5); South Dakota (58.5); Connecticut (58.1); Michigan (57.8); New York (57.8); Pennsylvania (57.8); New Jersey (57.7); Florida (57.4); Massachusetts (57.2); California (57.0); Colorado (56.7); North Dakota (56.4); Nevada (56.3); Delaware (56.3); Maine (56.2); Indiana (56.2); Illinois (56.0); Hawaii (56.0); Missouri (55.6); Virginia (55.5); Vermont (55.1)	
55.0-50.1	Ohio (55.0); Arizona (54.1); Texas (52.6); Georgia (52.1); Louisiana (52.0); South Carolina (51.4); Arkansas (50.8); Tennessee (50.5); Oklahoma (50.3); Mississippi (50.2); North Carolina (50.1)	
50.0-45.1	West Virginia (48.1); New Mexico (47.9); Kentucky (47.8); Alabama (47.4)	
45.0-40.1	District of Columbia (42.1)	
40.0-35.1		Washington (38.4); Arizona (37.9); Wisconsin (37.0); Pennsylvania (36.2); Kansas (36.0)
35.0-30.1		Missouri (33.5); California (33.4); Massachusetts (32.9); New Jersey (32.8); Illinois (32.3); Ohio (31.9); Indiana (31.7); Connecticut (30.5); New York (30.5); District of Columbia (30.3)
30.0-25.1		Michigan (30.0); Maryland (29.7); West Virginia (28.8); Virginia (28.8); Kentucky (27.4); Tennessee (26.5)
25.0-20.1		Texas (25.0); Delaware (24.9); Oklahoma (24.4); Florida (23.5); Louisiana (23.1); North Carolina (22.9); Georgia (21.5); South Carolina (21.1); Mississippi (20.9); Alabama (20.4); Arkansas (20.3)
United States:		
Total	54.9	24.4

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[a] States with less than 25 cases were omitted.

Table 5.9

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale

(School Year 1974-1975)[a]

Sex: Male — Future Plans: 4 Years of College

Mean AFQT Percentile Score	Caucasian & Other (~ Non-Black)	Black
80.0-75.1	Iowa (76.1); Minnesota (75.8)	
75.0-70.1	Wisconsin (75.0); Washington (74.8); Montana (73.8); Wyoming (73.6); Maine (73.6); Rhode Island (72.8); South Dakota (72.8); Nebraska (72.7); New Hampshire (72.5); Idaho (72.3); Pennsylvania (71.4); Alaska (71.2); Indiana (70.9); Michigan (70.8); Kansas (70.8); Oregon (70.7); Hawaii (70.6); Maryland (70.6); Delaware (70.3); Ohio (70.2); Connecticut (70.2)	
70.0-65.1	North Dakota (69.9); Utah (69.7); Illinois (69.7); Missouri (69.6); Vermont (69.4); Massachusetts (69.4); Virginia (69.2); New York (68.8); Colorado (68.7); California (68.6); Florida (68.4); New Jersey (68.1); Nevada (67.6); Arizona (67.0)	
65.0-60.1	Texas (64.7); Tennessee (64.6); Georgia (64.5); North Carolina (64.3); West Virginia (63.9); South Carolina (63.9); Arkansas (63.5); Kentucky (63.1); Oklahoma (63.1); Louisiana (62.7); New Mexico (60.9); Alabama (60.2)	
60.0-55.1	Mississippi (60.0)	
55.0-50.1	-----	
50.0-45.1	District of Columbia (48.3)	Pennsylvania (45.4)
45.0-40.1		Maryland (42.7); Arizona (42.2); Indiana (42.0); Massachusetts (41.9); California (41.9); New Jersey (41.8); Missouri (41.6); Wisconsin (41.4)
40.0-35.1		Virginia (38.5); Ohio (37.5); Illinois (36.6); District of Columbia (36.1); West Virginia (36.0); Connecticut (35.8); Kentucky (35.6); New York (35.5); Tennessee (35.4)
35.0-30.1		Texas (34.2); Michigan (32.9); North Carolina (32.8); Georgia (32.4); South Carolina (31.9); Oklahoma (31.8); Louisiana (30.1)
30.0-25.1		Florida (29.0); Arkansas (29.0); Alabama (28.8); Mississippi (26.5)
United States:		
Total:	67.4	33.2

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[a] States with less than 25 cases were omitted.

Table 5.10

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale (School Year 1974-1975)[a]

Sex: Male — Future Plans: Military

Mean AFQT Percentile Score	Caucasian & Other (~Non-Black)	Black
65.0-60.1	Alaska (61.3)	
60.0-55.1	Wisconsin (59.6); Montana (58.6); Idaho (57.9); Oregon (57.8); South Dakota (57.6); Minnesota (57.4); Washington (57.1); Nebraska (56.9); Wyoming (56.7); Rhode Island (55.8); Iowa (55.7); Connecticut (55.7); New Hampshire (55.7)	
55.0-50.1	Utah (54.9); Colorado (54.3); North Dakota (54.1); Michigan (54.0); Maine (53.5); Kansas (53.3); Pennsylvania (53.2); New York (53.2); Massachusetts (52.7); Nevada (52.5); Vermont (51.9); Arizona (51.9); Florida (51.9); New Jersey (51.4); Indiana (51.1); Ohio (50.5); Virginia (50.4); California (50.2)	
50.0-45.1	Illinois (49.8); Maryland (49.8); Missouri (49.4); Arkansas (49.3); Delaware (48.9); Louisiana (48.4); Texas (47.6); Georgia (47.5); Mississippi (46.9); Alabama (46.4); Tennessee (46.2); Oklahoma (45.7); West Virginia (45.3)	
45.0-40.1	North Carolina (44.9); South Carolina (44.7); New Mexico (44.4); Kentucky (44.2)	
40.0-35.1	Hawaii (39.3)	
35.0-30.1		Massachusetts (33.2); Illinois (31.9); Missouri (31.4); Pennsylvania (30.5)
30.0-25.1		Connecticut (29.5); Ohio (28.9); California (28.8); Michigan (28.6); New York (28.3); West Virginia (26.9); New Jersey (26.6)
25.0-20.1		Indiana (25.0); Maryland (24.2); Virginia (24.2); Oklahoma (23.8); Tennessee (23.6); Texas (23.2); Louisiana (22.5); Delaware (22.3); Kentucky (22.2); Florida (21.2); South Carolina (20.6); Alabama (20.4); Georgia (20.1); North Carolina (20.1)
20.0-15.1		Mississippi (19.9); Arkansas (18.9)
United States:		
Total	50.9	22.3

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[a] States with less than 25 cases were omitted.

Table 5.11

Female High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by Future Plans, Geographic Area, and Race

(School Year 1974-1975)

Geographic Area [a]	Mean Equivalent AFQT Percentile Score by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
			Caucasian & Other (~ Non-Black)				
United States: Total	48.6	60.9	47.7	44.1	44.4	38.7	43.4
Northeast	52.0	65.1	50.7	49.0	47.6	41.6	47.0
New England	52.1	65.5	49.7	48.9	47.9	40.9	46.0
Middle Atlantic	52.0	64.9	51.3	49.0	47.5	41.8	47.5
North Central	52.2	65.1	52.3	50.4	47.6	42.5	47.8
East North Central	51.3	64.8	51.3	49.3	46.6	42.3	47.0
West North Central	53.5	65.6	54.1	51.5	49.5	42.9	49.1
South	44.9	57.3	43.9	39.0	38.7	35.3	39.1
South Atlantic	46.2	59.6	45.2	39.7	39.7	35.7	40.2
East South Central	42.3	54.1	42.0	36.5	38.2	33.6	37.1
West South Central	45.6	57.2	43.9	40.2	37.5	36.5	39.7
West	51.0	62.9	48.6	45.7	45.0	41.2	45.9
Mountain	49.8	61.1	48.5	42.9	43.6	41.1	45.0
Pacific	51.8	63.9	48.6	45.7	45.0	41.2	45.9
			Black				
United States: Total	20.7	27.9	19.1	17.3	19.1	14.1	17.7
Northeast	27.5	34.0	25.1	27.1	26.5	17.4	24.7
New England	25.1	31.1	23.5	--	26.0	15.7	22.2
Middle Atlantic	28.4	34.9	25.6	25.0	26.7	18.2	25.9
North Central	26.0	31.4	21.4	22.1	24.7	19.6	23.9
East North Central	25.5	30.1	20.8	21.6	25.1	19.1	24.3
West North Central	27.7	37.3	24.4	23.9	23.1	21.1	22.3
South	19.6	26.9	18.2	16.8	17.7	13.4	16.9
South Atlantic	20.1	28.5	19.1	17.1	18.0	13.7	17.1
East South Central	18.6	25.1	16.5	16.3	17.3	12.6	16.3
West South Central	20.1	26.8	18.4	16.9	17.7	13.9	17.0
West	28.0	34.4	23.6	22.0	27.2	20.8	24.1
Mountain	26.9	32.1	--	--	--	--	24.3
Pacific	28.2	34.8	23.0	22.7	28.1	20.0	24.0

Source: Derived from tabulations by MARDAC. --signify no cases or less than 25 cases reported.

[a] See footnote to Table 5.1 for states by geographic area.

Table 5.12

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale

(School Year 1974-1975)[a]

Sex: Female

Future Plans: Total

Mean AFQT Percentile Score	Caucasian & Other (~Non-Black)	Black
60-55.1	Iowa (57.8); Montana (57.6); Wyoming (56.4); Nebraska (56.2); Wisconsin (56.2); Oregon (56.0); Idaho (55.5)	
55.0-50.1	South Dakota (54.3); Washington (54.2); Rhode Island (54.1); Alaska (53.6); Kansas (53.3); Hawaii (53.2); Massachusetts (52.7); New Hampshire (52.6); New York (52.4); Michigan (52.3); Maine (52.2); Vermont (52.1); Pennsylvania (52.0); Utah (51.8); Missouri (51.6); Minnesota (51.6); North Dakota (51.6); New Jersey (51.3); Colorado (51.2); Nevada (51.1); Maryland (50.6); Florida (50.3); Connecticut (50.2); California (50.1)	
50.0-45.1	Illinois (50.0); Indiana (49.9); Ohio (49.7); Virginia (48.3); Arizona (46.9); Delaware (46.8); Texas (46.2); Arkansas (45.5); Oklahoma (45.4); Georgia (45.3)	
45.0-40.1	North Carolina (44.1); Louisiana (44.1); Mississippi (43.9); South Carolina (43.1); Tennessee (43.0); West Virginia (42.1); Alabama (41.8); New Mexico (41.6); Kentucky (40.9)	
40.0-35.1	----	
35.0-30.1	District of Columbia (34.6)	Wisconsin (33.6), Kansas (30.9); New York (30.7); Arizona (30.4); Pennsylvania (29.4); California (28.0); Indiana (27.8); Missouri (26.6); Washington (26.5); New Mexico (26.4); New Jersey (26.4); West Virginia (26.0); District of Columbia (25.9); Massachusetts (25.9); Illinois (25.5); Ohio (25.2)
25.0-20.1		Connecticut (24.8); Michigan (24.7); Virginia (23.5); Maryland (23.2); Tennessee (22.6); Oklahoma (22.2); Kentucky (22.1); Texas (21.8); Delaware (20.8)
20.0-15.1		Nevada (19.9); Florida (19.7); North Carolina (19.2); Louisiana (19.1); Georgia (18.9); South Carolina (18.5); Arkansas (18.2); Alabama (18.0); Mississippi (17.5)
United States:		
Total:	48.6	20.7

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[a] States with less than 25 cases were omitted.

Table 5.13

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale

(School Year 1974-1975)[a]

Sex: Female | Future Plans: 4 Years of College

Mean AFQT Percentile Score	Caucasian & Other (~ Non-Black)	Black
75.0-70.1	Vermont (72.1); Iowa (71.8)	
70.0-65.1	Wisconsin (69.5); Minnesota (68.9); Washington (68.6); Montana (68.0); Rhode Island (67.8); Nebraska (67.7); Oregon (67.4); Maine (67.4); Wyoming (67.3); Hawaii (66.6); South Dakota (66.5); Pennsylvania (66.1); Michigan (65.9); Idaho (65.8); Connecticut (65.2)	
65.0-60.1	Kansas (64.9); New York (64.7); Massachusetts (64.6); Indiana (64.6); Ohio (64.3); New Hampshire (64.1); Maryland (63.8); Missouri (63.8); Colorado (63.7); Virginia (62.6); Alaska (62.6); Utah (62.5); Delaware (62.4); Nevada (62.4); Illinois (62.3); New Jersey (61.8); California (61.6); Florida (61.5); North Dakota (61.1)	
60.0-55.1	Georgia (58.4); Arizona (58.3); Texas (58.0); North Carolina (57.6); West Virginia (57.4); Arkansas (57.1); Oklahoma (56.7); Tennessee (56.5); South Carolina (56.3); Louisiana (55.2)	
55.0-50.1	New Mexico (54.5); Kentucky (54.2); Mississippi (53.3); Alabama (52.2)	
50.0-45.1	--	
45.0-40.1	District of Columbia (40.8)	
40.0-35.1		New York (38.6); Pennsylvania (37.7); West Virginia (36.4); Missouri (35.7)
35.0-30.1		Indiana (34.9); California (34.2); Massachusetts (32.9); Maryland (32.8); Virginia (32.3); New Jersey (31.2); Tennessee (30.8); Ohio (30.5); Oklahoma (30.5); Connecticut (30.1)
30.0-25.1		Illinois (29.9); Kentucky (29.7); Texas (29.4); Michigan (29.2); Georgia (28.4); North Carolina (27.8); Delaware (27.1); South Carolina (26.1); Florida (25.8); Louisiana (25.4); Alabama (25.3)
25.0-20.1		Arkansas (24.6); Mississippi (22.7)
United States: Total:	60.9	27.9

[a] States with less than 25 cases were omitted.

Table 5.14

High-School Seniors Tested with ASVAB: Mean Equivalent AFQT Percentile Score, by State, Race, Sex, and Future Plans--Arrayed on a Regressive Scale

(School Year 1974-1975)[a]

Sex: Female		Future Plans: Military
Mean AFQT Percentile Score	Caucasian & Other (∼ Non-Black)	Black
55.0-50.1	Idaho (54.6); Minnesota (54.2); Nebraska (53.5); Wisconsin (51.7); Oregon (51.4); North Dakota (51.3); South Dakota (51.1); Montana (51.1); Maine (50.1)	
50.0-45.1	Iowa (48.7); Pennsylvania (48.6); Nevada (48.3); Massachusetts (48.1); Washington (47.5); New York (47.4); Indiana (47.2); New Hampshire (46.8); Connecticut (46.7); Michigan (46.7); Vermont (46.2); Illinois (46.2); Missouri (45.4)	
45.0-40.1	California (45.0); Delaware (44.9); Kansas (44.7); Florida (44.5); Maryland (43.6); New Jersey (43.5); Mississippi (43.4); Colorado (43.2); Ohio (42.7)	
40.0-35.1	Arizona (39.9); Virginia (39.6); Arkansas (38.9); Georgia (38.8); Alabama (37.8); Louisiana (37.6); Kentucky (37.5); Texas (37.4); West Virginia (37.0); Oklahoma (36.6); New Mexico (36.4); Tennessee (36.4)	
35.0-30.1	North Carolina (34.6); South Carolina (31.4)	
30.0-25.1	Hawaii (28.3)	Pennsylvania (29.1); California (28.2); Indiana (26.7); Connecticut (26.1); New York (25.8); Illinois (25.2)
25.0-20.1		New Jersey (24.8); Michigan (24.7); Ohio (24.3); Missouri (24.3); Delaware (23.4); Kentucky (22.1); Maryland (21.6); Texas (21.0); Virginia (21.0); Tennessee (20.6)
20.0-15.1		Arkansas (19.2); Oklahoma (17.8); South Carolina (17.5); North Carolina (17.4); Florida (17.2); Alabama (17.0); Georgia (16.7); Mississippi (16.2); Louisiana (15.7)
United States:		
Total	44.4	19.1

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[a] States with less than 25 cases were omitted.

the racial classification. Further, based on future plans, the mean AFQT scores of military-directed individuals are noticeably lower than those who plan to enter college, and lower as a group than the overall population. Sex differences in the scores of those who plan to enter the military are also apparent--with females showing lower mean AFQT scores.

A comprehensive statistical analysis of the relationship between the ASVAB distribution of AFQT scores and the distribution of the general population (derived from the mobilization plan) would be necessary to evaluate AFQT representativeness in the ASVAB sample. However, from available evidence it would appear that the distribution of equivalent AFQT percentile scores among ASVAB seniors is *generally lower* than the distribution among high school seniors in the total population (*especially* for Blacks). And, the AFQT distribution among ASVAB participants who indicate "4-years of college" as a future plan is closest to the distribution of high school seniors in the United States. This would suggest that the distribution of those who plan "4-years of college" could possibly be weighted to reflect the distribution of seniors in the general population.

Discussion If one overriding conclusion could be drawn from the present evaluation of ASVAB information, it would be that the sample is probably biased by the disproportionate representation of individuals favorably predisposed toward the military. Many ASVAB officials (from conversations with ASVAB program administrators and data analysts) feel that representation of the ASVAB by high schools is "adequate," with the exception of large cities. Yet, they do feel that the *students* who take the ASVAB are not representative of the populations within their high schools--i.e., that the distribution is skewed. Guidance counselors do urge certain students to take the test, but participation is on a completely voluntary basis--and, consequently, very likely to be biased.

This evaluation of the ASVAB is, nevertheless, exploratory, and the interpretations of results offered above are suggestive rather than conclusive. In addition, it is focused on only ASVAB participants who had completed the eleventh grade at the time of testing. A great deal of further research would be necessary to determine whether the ASVAB is a valid source of information on the total military-available population, and if not, whether procedures (statistical, or even in the system of actual test administration) could be implemented to create a representative sample. Data are available which would provide further detailed information on the distribution of the equivalent AFQT percentile scores (and those in condensed form by mental categories). Data are also available with respect to aptitude area tests, which should prove of major importance in relating these tests to the equivalent AFQT mental categories. Also, ASVAB testing is a continuous program which includes students in grades 9 through 12. As the DoD Institutional ASVAB program continues to expand--and the ASVAB becomes more widely accepted in the high schools as an indicator and reference of aptitude--it is expected that new data will more clearly reflect the distribution of the military-available population at-large. The ASVAB has also been established for mental testing, beginning with calendar year 1976, at the Armed Forces Examining and Entrance Stations (AFEES)--making possible analysis of ASVAB results based on the additional parameters of examination, rejection, and enlistment for military service.

From the perspective of Army representation, as evidenced through comparisons by future plans, it is interesting to observe that the mean AFQT scores are much lower for those who plan to enter the military than those who plan to enter college--and, lower overall for military-directed individuals than the total group of high school senior participants. However, the scores of those who plan to enter the military are also noticeably higher than the scores of those who plan to enter the civilian working force. In addition, these data confirm accession statistics, in demonstrating the generally higher appeal of military service among Blacks (as a group) than Whites. Further inference of representational relationships from the ASVAB will be available when accession data tapes are matched with the ASVAB II and V. Qualitative information on mental category and educational level, and information on the geographic areas (states) where tested and enlisted will be included. This merge is expected to be completed in the near future.

Table 5.15

High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): Numerical Distribution by Future Plans, State, Race, and Sex

(School Year 1974-1975)

Race: Caucasian & Other (~ Non-Black) Sex: Male

State	Numerical Distribution by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
United States: Total	275,211	85,835	20,330	21,932	23,859	43,164	80,091
Alabama	9,969	3,376	545	828	593	1,820	2,807
Alaska	438	156	25	42	29	58	128
Arizona	2,595	742	352	176	374	306	645
Arkansas	5,184	1,723	179	520	282	924	1,556
California	14,636	4,468	2,910	560	1,726	1,261	3,711
Colorado	2,534	735	196	194	240	386	785
Connecticut	2,981	829	236	235	367	423	892
Delaware	686	280	47	45	78	120	195
District of Columbia	67	34	3	--	7	3	20
Florida	8,114	2,983	887	344	1,092	699	2,139
Georgia	8,672	2,907	555	985	571	1,043	2,611
Hawaii	1,866	746	172	74	215	102	557
Idaho	1,806	482	153	252	117	226	576
Illinois	10,907	3,103	1,161	840	786	1,993	3,019
Indiana	7,594	2,316	297	586	626	1,384	2,385
Iowa	3,351	829	171	433	330	627	1,161
Kansas	3,232	865	290	359	212	537	969
Kentucky	8,054	2,463	292	703	451	1,719	2,426
Louisiana	7,755	3,439	259	511	439	1,315	1,792
Maine	1,677	311	84	221	268	244	549
Maryland	3,290	1,158	286	110	328	439	930
Massachusetts	5,831	1,790	353	252	711	920	1,805
Michigan	8,298	2,131	681	488	881	1,240	2,877
Minnesota	3,575	597	149	779	371	391	1,288
Mississippi	5,856	2,394	632	340	266	721	1,503
Missouri	9,121	2,748	511	663	818	2,114	2,467
Montana	2,132	538	92	297	224	269	712
Nebraska	3,274	838	131	401	201	661	1,042
Nevada	562	192	36	43	74	76	141
New Hampshire	1,084	280	61	112	168	108	355
New Jersey	4,926	1,860	345	317	485	868	1,251
New Mexico	3,106	971	148	316	368	372	931
New York	7,157	1,787	875	186	1,258	786	2,265
North Carolina	9,128	2,988	566	1,176	757	1,131	2,510
North Dakota	1,993	438	247	182	104	295	797
Ohio	10,961	2,677	463	798	1,041	2,261	3,721
Oklahoma	6,856	2,427	425	801	384	1,287	1,732
Oregon	2,351	770	205	108	291	304	673
Pennsylvania	18,208	8,464	1,058	1,079	1,710	3,725	6,172
Rhode Island	1,067	401	82	90	96	133	306
South Carolina	4,189	1,694	194	550	313	382	1,078
South Dakota	2,772	622	88	389	189	449	1,035
Tennessee	10,422	3,656	373	[illegible]	606	1,593	3,139
Texas	21,699	7,806	1,840	1,415	1,474	3,537	5,627
Utah	1,241	401	103	193	52	203	289
Vermont	655	90	51	82	120	117	225
Virginia	6,769	2,441	552	325	451	1,089	1,911
Washington	4,975	1,245	618	399	574	543	1,599
West Virginia	4,419	1,238	181	310	326	1,091	1,273
Wisconsin	6,358	1,431	121	984	567	1,080	2,256
Wyoming	866	286	88	76	89	138	280

Source: Derived from tabulations by MARDAC. -- signify no cases reported

Table 5.16

High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): Numerical Distribution by Future Plans, State, Race, and Sex

(School Year 1974-1975)

Race: Black

Sex: Male

State	Numerical Distribution by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
United States: Total	39,143	10,623	2,542	3,139	7,327	4,717	10,795
Alabama	4,181	952	173	436	829	579	1,213
Alaska	2	2	-	-	-	-	-
Arizona	56	24	11	1	10	2	8
Arkansas	1,501	329	77	165	183	270	477
California	816	282	138	38	144	56	158
Colorado	39	17	1	--	9	5	7
Connecticut	244	89	17	19	44	24	51
Delaware	104	16	5	5	36	16	26
District of Columbia	88	33	4	4	14	8	25
Florida	2,382	689	225	116	553	196	603
Georgia	3,864	810	153	507	809	441	1,144
Hawaii	10	5	[illegible]	1	--	1	2
Idaho	3	2	--	--	--	--	1
Illinois	1,113	450	105	72	151	105	230
Indiana	239	60	13	20	42	25	79
Iowa	15	7	2	--	--	3	3
Kansas	73	24	5	1	12	9	22
Kentucky	413	120	20	19	51	54	149
Louisiana	3,461	1,131	138	149	693	468	382
Maine	5	2	1	--	2	--	--
Maryland	505	124	25	26	126	69	135
Massachusetts	210	48	18	8	49	30	57
Michigan	650	265	69	51	75	54	136
Minnesota	18	8	1	1	1	1	6
Mississippi	3,270	904	360	245	467	437	877
Missouri	476	155	36	30	71	68	116
Montana	3	1	--	--	--	--	2
Nebraska	20	4	--	2	4	2	8
Nevada	32	10	1	--	3	4	14
New Hampshire	3	1	--	--	--	1	1
New Jersey	585	198	44	48	110	53	132
New Mexico	29	11	2	3	2	4	7
New York	598	216	77	17	102	43	143
North Carolina	3,324	717	180	275	860	357	935
North Dakota	2	1	--	--	--	--	1
Ohio	628	208	41	45	113	64	157
Oklahoma	393	109	34	34	42	64	110
Oregon	17	4	--	3	6	2	2
Pennsylvania	408	137	31	17	70	49	104
Rhode Island	12	1	--	--	3	--	8
South Carolina	2,849	526	132	300	716	352	873
South Dakota	8	3	--	--	1	--	4
Tennessee	1,318	370	65	150	182	165	386
Texas	2,785	796	264	160	354	413	798
Utah	3	--	1	--	--	--	2
Vermont	1	--	--	--	--	--	1
Virginia	2,135	598	155	105	354	292	631
Washington	52	17	8	3	11	2	11
West Virginia	132	40	3	9	13	26	41
Wisconsin	60	26	1	5	10	2	16
Wyoming	3	--	1	--	--	1	1

Source: Derived from tabulations bv MARDAC. --signify no cases reported.

Table 5.17

High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): Numerical Distribution by Future Plans, State, Race, and Sex (School Year 1974-1975)

Race: Caucasian and Other (~ Non-Black) Sex: Female

State	Numerical Distribution by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
United States: Total	221,757	67,906	27,397	13,560	8,508	36,795	67,591
Alabama	9,283	3,019	879	492	169	2,015	2,709
Alaska	377	150	31	17	20	48	133
Arizona	2,258	660	456	104	139	263	636
Arkansas	4,523	1,405	327	350	74	794	1,573
California	11,898	3,537	3,072	390	663	1,160	3,076
Colorado	1,886	562	218	85	84	304	633
Connecticut	2,416	891	375	92	171	145	742
Delaware	976	116	85	32	30	132	581
District of Columbia	40	24	2	--	5	2	7
Florida	6,531	2,154	1,207	204	356	772	1,838
Georgia	7,449	2,351	748	750	138	1,194	2,268
Hawaii	1,151	516	210	25	62	83	275
Idaho	1,513	394	267	162	56	166	468
Illinois	8,312	2,364	1,271	325	304	1,620	2,428
Indiana	5,922	1,621	488	332	199	1,164	2,118
Iowa	2,039	502	168	301	144	295	629
Kansas	2,236	761	152	160	71	311	781
Kentucky	6,715	1,766	704	348	147	1,349	2,401
Louisiana	5,462	2,043	414	382	130	1,040	1,453
Maine	1,236	294	165	82	90	205	400
Maryland	2,418	803	258	37	118	489	713
Massachusetts	3,501	1,285	586	99	173	452	906
Michigan	6,750	1,791	926	164	363	1,085	2,421
Minnesota	2,791	504	211	612	171	303	990
Mississippi	5.367	2,073	909	129	98	701	1,457
Missouri	7,932	2,456	744	361	224	1,860	2,287
Montana	1,696	536	161	206	99	148	547
Nebraska	2,587	830	259	330	76	435	657
Nevada	481	153	63	25	28	65	147
New Hampshire	1,045	293	134	89	71	124	334
New Jersey	3,368	1,301	373	166	160	497	871
New Mexico	2,965	1,034	259	239	153	367	913
New York	4,333	1,145	765	97	407	586	1,333
North Carolina	8,117	2,553	909	1,103	214	1,060	2,278
North Dakota	1,817	490	294	97	35	179	722
Ohio	8,190	1,982	717	498	377	1,759	2,857
Oklahoma	6,143	2,063	725	262	105	1,083	1,905
Oregon	1,879	596	269	75	140	217	582
Pennsylvania	12,674	3,408	1,526	453	670	2,624	3,993
Rhode Island	771	253	159	9	9	134	207
South Carolina	3,519	1,271	310	499	91	404	944
South Dakota	2,518	677	203	297	100	287	954
Tennessee	9,223	2,878	737	698	176	1,679	3,055
Texas	19,340	6,774	2,498	712	480	3,463	5,413
Utah	791	233	152	64	21	131	190
Vermont	423	81	42	11	33	86	170
Virginia	6,045	2,047	464	202	162	1,325	1,845
Washington	4,076	1,076	654	331	262	427	1,326
West Virginia	3,557	904	359	184	103	819	1,158
Wisconsin	5,025	1,253	168	887	293	726	1,698
Wyoming	592	193	127	22	21	60	169

Source: Derived from tabulations by MARDAC. --signify no cases reported.

Table 5.18

High-School Seniors Tested with ASVAB (Armed Services Vocational Aptitude Battery): Numerical Distribution by Future Plans, State, Race, and Sex

(School Year 1974-1975)

Race: Black　　　　　　　　　　Sex: Female

State	Numerical Distribution by Future Plans						
	Total	4-Years of College	2-Years of College	Vocational or Technical	Military	Work	Undecided
United States: Total	40,584	12,387	4,691	3,416	4,057	4,816	11,217
Alabama	4,682	1,347	448	485	471	637	1,294
Alaska	6	2	--	1	1	2	--
Arizona	50	19	9	--	8	2	12
Arkansas	1,388	386	99	170	109	191	433
California	836	327	189	32	93	41	164
Colorado	6	1	1	1	1	1	1
Connecticut	265	81	39	8	41	32	64
Delaware	114	25	17	5	28	16	23
District of Columbia	76	16	6	4	5	16	29
Florida	2,462	786	390	148	330	211	597
Georgia	3,894	966	329	720	356	411	1,112
Hawaii	12	7	--	1	--	1	3
Idaho	2	--	--	--	--	--	2
Illinois	1,130	499	137	64	101	111	218
Indiana	202	64	22	5	31	23	57
Iowa	21	10	2	--	3	--	6
Kansas	68	23	8	5	4	8	20
Kentucky	414	94	59	31	27	56	147
Louisiana	3,427	1,321	275	230	262	359	980
Maine	5	1	2	--	--	--	2
Maryland	786	203	94	22	72	210	185
Massachusetts	140	48	17	2	14	18	41
Michigan	636	269	103	21	52	51	140
Minnesota	17	7	2	--	3	--	5
Mississippi	3,854	1,291	473	143	351	481	1.115
Missouri	641	181	68	38	51	89	124
Montana	1	--	--	--	--	--	1
Nebraska	8	4	2	1	1	--	--
Nevada	27	9	4	2	3	4	5
New Hampshire	2	1	--	--	--	--	1
New Jersey	536	203	67	28	79	41	118
New Mexico	54	20	4	4	4	7	15
New York	319	118	50	6	63	22	60
North Carolina	3,387	811	350	342	400	411	1,073
North Dakota	1	--	--	--	--	--	1
Ohio	637	187	87	44	60	87	172
Oklahoma	373	100	49	27	29	50	118
Oregon	7	4	--	--	--	2	1
Pennsylvania	371	109	41	8	80	49	84
Rhode Island	8	--	--	--	6	--	2
South Carolina	2,781	678	268	366	308	225	936
South Dakota	--	--	--	--	--	--	--
Tennessee	1,480	442	160	162	129	164	423
Texas	2,813	904	438	157	168	366	780
Utah	5	2	1	--	1	1	--
Vermont	--	--	--	--	--	--	--
Virginia	2,515	776	368	129	196	373	673
Washington	28	8	3	1	4	1	11
West Virginia	148	42	18	1	11	26	50
Wisconsin	28	14	2	2	1	--	9
Wyoming	1	1	--	--	--	--	--

Source: Derived from tabulations by MARDAC. --signify no cases reported.

6. RESULTS AND IMPLICATIONS

The present evaluation of Army representation involved the construction and consolidation of an expansive information base from existing sources. A comprehensive portrayal of Army entrants in the volunteer environment has emerged from statistical analyses of this data. The following discussion further synthesizes analytical results into an overall assessment of volunteer accessions (Section 6.1) and highlights major conclusions regarding the convergence/divergence of Army entrants. Two general observations which have emanated from the present research concern the inherent problems encountered in policy-directed evaluations of representation and the interrelation of conflicting policy objectives. These issues are explored (Section 6.2) and then related to alternate approaches for continued research (Section 6.3).

6.1 Overview of Volunteer Accessions

Statistically, the Army never achieved proportional representation under the draft--with the possible exception of geographical representation, which was controlled by Selective Service district quotas. During the closing months of World War II the military approached "representation" of the age-eligible civilian population. Yet, even during this period of massive conscription, one in every four young adult males (19-25 years) was either disqualified or excused from service. An array of draft deferments, disqualifications, unrepresentative manpower quotas, and discriminatory practices has over the years limited the representational nature of Army membership (Section 1.1).

Perfect representation under the all-volunteer format is an unrealistic concept (Section 1.3) which, from the perspective of *organisational goals*, is probably not advantageous (Section 1.2). By defining the basic national policy objectives of military effectiveness, social equity, and political legitimacy--and correlating the scope of representational concerns with these policy guidelines--*bounds of approximate representation* can be established as the best standard of comparison (Section 2).

Using the conceptual model developed in Section 2 as a framework for analysis, it may be concluded that, generally, *Army entrants are not exceptionally divergent from their civilian counterparts.* Where divergence (i.e., by separate characteristics and subgroups) does extend beyond the zone of approximate representation, the Army still maintains a *balance of national policy objectives.* That is, by *present definitions* of effectiveness, equity, and legitimacy, the representational characteristics of Army accessions are not a cause for concern.

It should be noted that changes in national priorities--and consequent changes in the expressions and interpretations of national needs--*alter the bounds of approximate representation.* For example, although the benefits of military service (i.e., social mobility, education, training, etc.) which racial minorities now receive counteract certain equity requirements, present levels of minority overrepresentation during a time of war could not be so justified on the basis of similar criteria. Assessments of Army representation are dependent not only on the *manner in which "representation" is delimited and statistically calculated,* but also on *contemporary definitions* of national policy objectives--which, in turn, are influenced by the *social and political forces* of the immediate environment. While the present study purports to find a reasonable balance of civilian representation in the Army, this conclusion is based on interpretations of *current requirements* for proportional representation.

In summary, extant data reveal the following information on the representational characteristics of Army entrants:

Quality There is a strong tendency for Army entrants to be underrepresentative in the above-average and below-average categories of intelligence. However. Army entrants are also very overrepresentative in the average levels of intelligence (Figure 3.22; Figure 3.2; Figure 3.3). Trend data verify that a "tightening effect" on mental aptitude is occurring in the middle ranges: that is, percentages of entrants in the above-average and below-average groups have decreased--while the percentage of Group III enlistees has increased considerably.

High school graduates are overrepresented in every age-category among newly enlisted accessions (Table 3.7; Figure 3.17)--and trend data show that increased numbers of high school graduates are enlisting, while non-high school graduate accessions are decreasing in similar proportion (Table 3.8). There has been a decrease in the number of college-trained accessions since the termination of the draft--and representation of individuals with some college training appears to have stabilized at a level below that of the age-similar civilian population (Table 3.7). Enlisted accessions also compare more "favorably"--where "favorably" equals either representation or overrepresentation of high school graduates and above--with the age-similar civilian labor force.

Race Blacks continue to be overrepresented, regardless of the civilian standard used for comparison. "Other" races are also disproportionately represented in the Army. However, differences in racial proportions are influenced by the selection and aggregation of groups. There is a trend toward increased representation of racial minorities (Table 3.3), though intra-group statistical comparisons continue to highlight substantial divergence (Figure 3.19).

Socioeconomic Status Individuals from the lower economic strata are overrepresented and individuals from the higher economic strata are underrepresented in the Army--but in neither case are differences inordinately large (Table 3.10; Figure 3.20; Figure 3.8; Figure 3.15). NLS data on composite measures of socioeconomic status also indicate that greatest divergence occurs at the extreme ends of the scale (Figure 3.5). The bulk of accessions come from the middle-income strata of society--where the Army appears very similar to the civilian standard (Figure 3.20). A comparison of accession data over time shows a trend toward increased representation at the extreme ends of economic status--i.e., a decrease in the representation of enlistees from families with incomes of under $10,000 and a sizeable increase in accessions from families with incomes of $15,000 and above (Table 3.11; Figure 3.20).

A comparison of the marital status of enlisted personnel with that of age-similar civilians indicates substantial divergence at the entry level (Table 3.5). Newly enlisted accessions are conspicuously overrepresentative of married personnel.

NLS data also show significant differences in "father's occupation" among civilian and Army groups. The greatest discrepancies occur in the overrepresentation of military occupations, followed by the underrepresentation of Professional/Managerial/Technical occupations (Figure 3.7).

Region Army accessions continue to be overrepresentative of the South and underrepresentative of the North (Table 3.13; Figure 3.6; Figure 3.21). However, percentages of new enlistees correspond well to percentages of the youth population in each state (Table 3.12). Regional representation also appears to be improving (Table 3.13)--though large cities are underrepresented and rural areas are overrepresented.

Attitudes NLS Army entrants (1) profess greater acceptance of community standards and political processes than their civilian peers (Table 4.1; Table 4.3; Table 4.6; Table 4.8; Table 4.9); (2) exhibit comparatively high levels of participation in community-related affairs and political activities (Table 4.1; Table 4.6; Table 4.9); (3) show a lower composite measure of self-esteem during high school, but increase after 2½ years to levels even higher than civilian counterparts (Figure 3.14; Table 4.7); (4) profess a lower sense of control over their environment but express increased control over time--at a rate conspicuously greater than non-entrants (Table 4.7); (5) show greater orientation toward environmental values (Table 4.8); (6) express a much greater change of attitudes over the 2½ year period following graduation than their peers (Table 4.7; Figure 4.7; Figure 4.8; Figure 4.9; Table 4.10; Table 4.11; Table 4.12); (7) express an overall higher regard for the well-being of personal and community life (Figure 3.10; Figure 3.11; Figure 3.12;

Figure 4.1; Figure 4.3; Figure 4.4; Figure 4.5; Figure 4.6; Table 4.8); (8) appear to be more achievement-oriented (Figure 3.10; Figure 3.11; Figure 3.12; Table 4.10); and (9) evidence a somewhat lower homogeneity of thought than their civilian counterparts (Table 4.1; Table 4.2; Table 4.3; Table 4.4; Table 4.5; Table 4.6).

6.2 The Dynamics of Representation

The data of this evaluation support the hypothesis that the All-Volunteer *system* somehow *favors* the enlistment of "average" young men and women--that is, those individuals from the middle-ranges of socioeconomic achievement, those from the rural "heartlands" of America, those whose fathers are employed in "average" working-class jobs, and those who appear to possess attitudes and feelings which are sometimes categorized as "middle-American." The corollary to this observation might be that the system also somehow acts in opposition to the enlistment of individuals at the extreme ends of representational scales--that is, those who are either rich or poor, those who are above or below average intelligence, those who never finish high school or those who finish college, those whose fathers are unemployable or those whose fathers are company executives, and so forth. It may also be that any volunteer system will favor the enlistment of some--and counteract the enlistment of others--at *all times* and under *all circumstances*.

Patterns of Army representation may be *expected to change over time*--if only for the fact that the manpower procurement "system" is not always in balance with the environment, and, consequently, not *always* enhancing the enlistment of any *particular* segment of society. The results of this evaluation, for example, show that very noticeable differences do exist among Army entrants from the same high school graduating class, based on their time-of-entry into the Army; also, that patterns of enlistment have changed for practically all demographic measures-- whether the result of natural "free-flow" changes in Army appeal or Defense recruitment policy--in favor of *increased convergence* with civilian society.

When "representation" is extended to include *attitudes*, it becomes apparent that some comparison measures may even be expected to change independent of the system or any controls which may be imposed to "insure" the achievement of national policy objectives. Attitude *changes* appear to occur in a conspicuously greater degree among Army entrants than among non-entrants. These changes, attributable to a complex of reasons, cannot be regulated by procurement policy and/or planning based on representational goals.

Policy which is actually directed toward the recruitment of some proportional configuration of the civilian population must also take into account the *interrelation* of representational measures. For example, policy aimed at achieving educational or regional representation may counteract the achievement of racial/ethnic or socioeconomic representation and vice-versa. The interraction of representational features will oppose policy which does not compensate for these trade-offs of population characteristics. In addition, consideration must be given to those changes in Army representation which occur as a result of reenlistment or voluntary exit--with the understanding that those who remain in the Army may become so divergent from civilian society as to require the recruitment (e.g., "affirmative action") of an *opposite* but equally divergent configuration of enlistees.

An understanding of the *dynamics* of representation is critical to long-range planning for the achievement of Army representation. To the extent that exogenous factors may at some time require the partial abandonment of "free-flow" policy, any program designed to attract the voluntary enlistment of a targeted segment of society must also take into account the full effect of that program on the *total* system.

6.3 Implications for Research

An analytical methodology which appears particularly suited for use in gaining insights into the relationship between structure and behavior is *System Dynamics* (cf. Forester, 1968). This methodology has a theoretical base in cybernetics and control theory, and uses the "feedback loop"--i.e.,"...a closed path connecting in sequence a decision that controls action, the state of the system, and information about the state of the system; with the latter returning to the decision-making point" (Forester, 1968, p.8)--as the principal element in its model-building efforts.

There are obvious advantages in proceeding from implicit structures (i.e., *conceptual* models of representation) to their explicit counterparts. An explicit model of the behavior of the system (1) increases communicability, (2) bares underlying assumptions of the representational behavior of the system for policy evaluation and (3) exposes the representational consequences which implementation of a given policy alternative might bring about. System Dynamics is designed to facilitate the development of an explicit model of the feedback structure inherent in the system. The structure is subsequently translated into computer code (DYNAMO) which allows the structure to be tested--for example, by comparing model-generated behavior with that produced by the real system.

A model capable of replicating the essential behavioral characteristics of the system will help to obviate the underlying reasons for changes in the patterns of Army representation over time. Management will then be able to test various policies (using the simulation model) in order to determine which policies--among the available alternatives and within the guidelines of national objectives--are most likely to correct undesirable tendencies toward disproportionate representation.

The development of a dynamic mathematical model of Army representation is, however, an analytical goal which appears to be far-removed from immediate research needs. The present evaluation of Army representation established a set of criteria by which representational measures could be judged. The most basic flaw in this approach is the fact that no *clear consensus* of national policy objectives now exists. The conclusions of this study are based on interpretations of written expressions regarding the requirements of Army representation--and are themselves, therefore, only *re*interpretations of available evidence.

The objectives of representation must be better defined. This is contingent upon some type of consensus concerning "acceptable" levels of representation. In addition to providing an objective function for long-range planning, a "consensus" of representational goals would facilitate the development of "acceptable" methods for analysis of Army representation--that is, a set of standards to delimit comparison groups (e.g., Army vs. total civilian population and/or the civilian working force) and levels of aggregation.

An approach which has proved effective in developing collective opinion on issues of national import is the *symposium*. This would involve the formal convening of recognized spokesmen from various sectors of society--i.e., political, bureaucratic, academic, etc.--in order to unfold the issues of Army representation and cultivate a unified understanding of national needs. A related method for organizing collective thought is the *Delphi* technique--broadly defined as "a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" involving (1) feedback of individual contributions of information and knowledge, (2) some assessment of the group judgment or view, (3) some opportunity for individuals to revise views, and (4) a degree of anonymity for individual response (Linstone and Turoff, eds., 1975, p.3).

Once Army "representation" is better defined and the dynamics of the system exposed, policy-directed research of representation may be developed in several new areas. The present evaluation provides insight into the possible directions such research might take. In addition to the above recommendations, future analyses should concentrate on the following issues of Army representation:

Attitudes The attitudes of Army entrants should be further explored and compared with civilian attitudes. Special attention should be placed on the study of attitude *changes* among Army and civilian comparison groups--and the differences in attitudes at time-of-entry and rate-of-change between various Army cohorts. This research would necessitate the development of a longitudinal survey.

Consequences Examine the *consequences* of representation. The basic reason for examining Army representation concerns the perceived *effects* of various configurations of Army membership on effectiveness, equity, and legitimacy. Many assumptions regarding the impact of representational levels on the military and society are not supported by empirical evidence. Efforts should be made to (1) further examine the consequences of various types and levels of representation--especially in the area of military effectiveness, where disagreement is strong and evidence is inconclusive; (2) further develop the interrelation of consequences with policy objectives--and evaluate the trade-offs which occur as a result of conflicting policy objectives (e.g., military effectiveness vs. the social opportunities of Army service); and (3) evaluate, from the above data, the marginal utility of achieving increased "representation"--including the social consequences of restrictions on "free-flow" enlistment policy.

New Areas Expand current areas of study. An examination of the consequences of demographic and attitudinal representation requires that certain new areas be explored--areas which may themselves be compared between Army and civilian groups, and then correlated with demographic characteristics and/or organizational influences. New areas may include: (1) perceptions regarding the "Quality of Life;" (2) political inclinations; (3) values and value systems; (4) antisocial behavior; (5) more detailed study of job satisfaction, self-esteem, locus of control, and orientation toward environmental values; and so forth.

ASVAB Continue to evaluate the utility of the ASVAB data base with respect to (1) possible future use as a representative sample of the age-eligible, military-available mobilization population, and (2) possible future use as an information base on the military-defined quality of the general age-eligible population and its relation to demographic variables. Continued evaluation should also seek to develop procedures (statistical and/or actual administrative) whereby the utility of ASVAB data may be enhanced. In regard to quality measurement, special attention should be given to the development of new aptitude measures of representation (e.g., vocational, mechanical, etc.) which are particularly useful to the Army.

Continuing Evaluation Continue to monitor, on a yearly basis, patterns of Army representation. The present evaluation has shown that Army representation is dynamic and subject to the influence of exogenous factors. Further, changes in national posture affect the expressions and interpretations of national needs--and consequently modify the bounds of approximate representation. A continuing evaluation of Army representation which relates measures of representation to national policy objectives would benefit the planning and management of civilian-military convergence.

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APPENDIX A

Data Sources

Several data sources were used in this study of Army representation. Primary sources included the Army Quarterly Survey, Current Population Reports from the U.S. Bureau of the Census, the National Longitudinal Study of the High School Class of 1972, the Gilbert Youth Survey - USAREC tape merge, and the Armed Services Vocational Aptitude Battery (ASVAB). In addition, the 1972-73 Quality of Employment Survey, the National Longitudinal Survey (Ohio State University), and the Department of Defense in-service personnel survey files (MARDAC Survey Data Bank) were explored for possible future relevance to studies of Army representation.

The following is a capsule description of the primary data sources used in this analysis and a statement on the results of the data search.

The National Longitudinal Study - In the spring of 1972, the original Base Year NLS Questionnaire was given to 18,143 high school seniors throughout the U.S. It had been under planning since 1969 by the National Center for Educational Statistics (NCES) of the Office of Education. The sample was designed to provide a stratified random cross-section of the entire high school senior class of 1972. Measurements were taken from the students and from their schools as to demographics, achievements, attitudes, and motivations.

In October of 1973, 86% of the original respondents were recontacted (as well as some new respondents) and asked to fill out a new questionnaire asking them about their current activities, whether and how their plans had changed, and so forth. In the fall of 1974, a Second Follow-Up survey was administered, also with a response rate of approximately 86%.

The treatment of activities and plans in the base-year and follow-up operations facilitated the construction of the four groups compared in this analysis: i.e., "never," "in and out," 2 yrs. or less "(or "late arrivals") and "more than 2 yrs." An explanation of the time periods for these groups is presented in Section 3.2 of the report.

Other measures were derived in the following manner:

Race-Ethnicity was determined by the subject's reponse to to the question, "How do you describe yourself?" The category "other" includes American Indian, Mexican-American or Chicano, Puerto Rican, other Latin American origins, Oriental and Asian-American.

Socioeconomic Status, computed by Research Triangle Institute (RTI) (Research Triangle Park, N.C.), is a composite of five components: father's occupation, parents' income, father's education, mother's education, and household items. Each component variable was standardized and given equal weight in calculating the composite. The terms high, medium, and low SES refer to subjects in the upper, middle two, and lower quartiles, respectively, of the composite score frequency distribution.

Aptitude was determined (by RTI) from the composite value of a series of tests designed by Educational Testing Service (Princeton, N.J.). Four test areas were included: vocabulary, reading, letter groups, and mathematics. The mean of the four standardized scores served as a general index. The terms high, medium, and low refer to subjects in the upper, middle two, and lower quartiles, respectively.

Regions were divided according to the four Bureau of the Census aggregations as follows:

Northeast (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania).

North Central (Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas).

South (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas).

West (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii).

Literacy Level was developed in response to a request from ARI. This index is a composite of three tests from the NLS: Vocabulary (V), Spatial (S), and Reading (R). The formula used to compute the composite is: LITLEV = V + S + R + 13. The factor of 13 was included to insure a positive value, since V, S, and R could assume negative values.

Scaled Items in the "snowflake" presentations of Section were ordered in the following manner: In questions giving the choices (1) Not Important, (2) Somewhat Important, and (3) Very Important, the group of people examined is those who answered (3). On questions whose choices were (1) Agree Strongly, (2) Agree, (3) Disagree, (4) Disagree Strongly, and (5) No Opinion, the people who answered (1) and (2) were combined as were those who answered (3) and (4). The (5) answers were eliminated. On questions containing (1) Very Satisfied, (2) Satisfied, (3) Dissatisfied, (4) Very Dissatisfied, answers were grouped (1) with (2), and (3) with (4).

Gilbert Youth Survey - USAREC Tape Merge - This merge was made by the Manpower Research and Data Analysis Center (MARDAC) in order to determine the predictive validity and reliability of the independent variable "enlistment intent." Data were combined from two sources to accomplish this objective: (1) the May 1974 Gilbert Youth Survey in which social security numbers (SSNs) were obtained and (2) USAREC accession data up to and including those enlisting as of *June 1975*.

The percent of the original May 1974 survey who gave SSNs to the interviewer was 76%, thus decreasing the sample size and also creating a possible bias (i.e., analysis of only those respondents providing SSNs). The age group of the respondents was 17 to 29 years old. Of a total of 3610 respondents providing SSNs, 201 were located on the accession tapes as having enlisted in the military service--or 5.6%. The weight used was V-2, the same weight used by Gilbert to rescale the sample to the total population. The *total* number of respondents entering the *military service* was used in this analysis rather than Army enlistees, due to the small size of the accession sample. The questions examined in this analysis were drawn from the Gilbert Survey of Youth, using the non-entry sample as the civilian age-similar standard for comparison.

November 1975 Army Quarterly Survey - The Army Sample Survey is a multipurpose instrument, administered worldwide on a quarterly basis. The sample population for the November 1975 Quarterly Survey consisted of a randomly selected group of officer and enlisted personnel, both male and female. (Only the enlisted personnel data were used in this report.) A five-percent sample of the enlisted personnel was chosen using the terminal digits of their social security numbers. The data extracted from this survey have a reported reliability level between 95% ± 6% and 95% ± 9%.

Census Information was obtained from the U.S. Department of Commerce, Bureau of the Census, Series P-20, P-25, and P-69. In addition, information was obtained from the U.S. Department of Health, Education and Welfare and the U.S. Department of Labor--on educational statistics and age-similar labor force characteristics, respectively. (References to specific documents are contained in the body of the report and selected bibliography.) A description of the *ASVAB* forms a part of the report.

Notes on the Search of Data Sources Several additional sources were explored and found to be inadequate for use in the present analysis. The 1972-1973 (Longitudinal) Quality of Employment Survey (cf. Quinn and Shepard, 1974), sponsored by the U.S. Department of Labor, might have some future relevance to studies of representation which concentrate on job attitudes and employee perceptions of the working environment. Since the military population cannot be identified within the broad category of "government" employees, however, this survey sample can only be used as a standard for comparison with some other similar survey.

The National Longitudinal Surveys, administered by the Center for Human Resource Research (1975) of the Ohio State University (also sponsored by the U.S. Department of Labor), does not appear to be of any major relevance to studies of Army representation. This NLS, at present, only covers the years 1966-1970 for boys and 1968-1971 for girls. (Data through 1971 for boys and 1972 for girls are expected to be released during 1976.) Surveys conducted during years prior to the AVF are of limited value, since such data are probably contaminated with draft-motivated enlistees. The Survey, as it is currently structured, also carries only military information on individuals who have been discharged--since no attempt is made to survey members of the sample during periods of military service. It is possible, therefore, to identify only those Army enlistees who choose to pursue short-term enlistments; careerists are lost entirely. Although there are some excellent question areas on the Survey, data which may be relevant to the study of Army representation are limited in scope--and several years from being available to analysts.

Department of Defense surveys are probably better sources of information. The MARDAC Survey Data Bank (1975), for example, has at this writing information from the AFEES surveys, the Gilbert Youth Surveys, Youth Tracking Surveys, DoD Personnel Surveys, Voting Surveys, Drug Use Surveys, and 28 Army Sample Surveys of Military Personnel from February 1973 through November 1975. These surveys are a valuable source of information in their own right--and could be especially useful in studies of Army representation when similar information is available on civilian-administered surveys (for purposes of comparison) and/or when merges are possible through the use of SSNs (as in the case of the Gilbert Youth Survey-USAREC tape merge). A telephone survey of major data archives in the United States indicates that related surveys are available for comparison with DoD in-Service data, and that matches (under Privacy Act guidelines) are possible in some instances.

APPENDIX B

Table B.1

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ENTERED ARMY VS. DID NOT

Characteristic	Responses	Did Not Enter	Did Enter
Literacy Level	Low	32.2	40.7
	Medium	24.5	26.3
	High	43.3	33.0
Aptitude	Low	26.1	35.4
	Medium	45.8	44.5
	High	28.0	20.1
Race	White	85.1	75.6
	Black	9.0	18.0
	Other	5.9	6.4
Socio-Economic Status	Low	25.1	40.0
	Medium	49.8	41.2
	High	25.0	18.9
Region	North East	25.2	15.7
	North Central	30.6	29.9
	South	26.7	33.7
	West	17.5	20.7
Father's Occupation	Professional, Managerial, Technical	38.0	29.2
	Clerical, Sales	8.7	8.4
	Service	50.6	56.7
	Military	2.7	5.7
Parent's Income	< 9 Thousand	37.3	51.8
	9-13.5 Thousand	31.8	27.1
	13.5-18 Thousand	16.2	12.8
	18 Thousand +	14.7	8.4
High School Activities	Athletics	44.4	58.6
	Cheerleading, etc.	17.4	9.6
	Debating, Music, Drama	32.8	29.5
	Hobby Clubs	18.8	23.2
	Honorary Clubs	14.7	5.0
	Yearbook, Newspaper	20.4	17.1
	Subject Matter Clubs	25.8	17.6
	Student Government	19.6	19.2
	Vocational Education	23.0	23.1
Important Goals in Life	Success	77.0	80.5
	Good Marriage	84.8	88.5
	Money	[illegible]	20.4
	Friends	75.3	79.2
	Steady Work	66.6	78.6
	Community Leader	6.1	11.6
	Better Opportunity for Children	59.2	75.7
	Living Close to Relatives	10.0	8.2
	Getting Away from this Area	7.5	17.5
	Correcting Social Injustices	15.5	27.2
	Leisure Time	57.9	57.8
	Good Education	57.1	71.5

Table B.1 (Con't)

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ENTERED ARMY VS. DID NOT

Characteristic	Responses	Did Not Enter	Did Enter
Important Factors in Selecting a Job or Career	Money	21.7	29.6
	Opportunity for Creativity	38.8	35.8
	Useful in Society	53.2	45.6
	Avoid High Pressure	30.9	28.4
	Working in World of Ideas	34.4	31.8
	Freedom from Supervision	23.1	25.5
	Opportunity for Steady Progress	33.9	32.2
	Chance to be a Leader	15.5	26.6
	Working with People	48.8	43.9
	Position Looked Up To	24.7	35.0
Important Factors in Selecting Life's Work	Previous Experience	39.0	36.1
	Relative/Friend in Same Line	7.7	9.0
	Available Openings	50.0	47.3
	Work Matches Hobby	26.9	33.1
	Good Income	52.7	65.6
	Job Security	63.6	71.0
	Interesting Important Work	84.4	87.8
	Freedom to Make Decisions	57.7	65.7
	Opportunity for Promotion	61.5	73.0
	Working with Friendly People	68.1	71.3
Job Satisfaction	Pay and Fringe Benefits	74.1	70.3
	Importance and Interest of Work	70.8	68.0
	Working Conditions	81.3	54.2
	Opportunity of promotion with This Employer	61.5	66.5
	Opportunity for Advancement in This Line of Work	63.6	64.9
	Opportunity to Use Past Training	63.2	56.1
	Supervisor	81.[illegible]	68.8
	Opportunity for Development of New Skills	69.3	62.7
	Work as a Whole	82.8	72.0
	Respect Received from Others	85.8	82.2
Self Appraisal	I take a positive attitude toward myself	93.5	93.4
	Good luck is more important than hard work	9.9	11.0
	I feel I am a person of worth	96.6	96.1
	I am able to do things as well as others	96.0	96.8
	Everytime I try to get ahead something stops me	16.7	17.0
	Planning only makes one unhappy, plans never work out	14.7	18.7
	People who accept their condition in life are happier	25.7	26.9
	On the whole I am satisfied with myself	87.6	88.8

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS

Characteristic	Responses	Never	In & Out	2 Yrs. or Less	More Than 2 Yrs.
Literacy Level	Low	32.2	33.6	39.9	41.9
	Medium	24.5	23.2	28.5	24.4
	High	43.3	43.2	31.6	33.7
Aptitude	Low	26.1	33.6	35.6	35.3
	Medium	45.8	23.3	47.4	42.9
	High	28.0	43.2	16.9	21.8
Race	White	85.1	66.4	77.9	73.9
	Black	9.0	33.6	17.0	18.1
	Other	5.9	0.0	5.0	8.0
Socio-Economic Status	Low	25.1	48.9	47.5	32.4
	Medium	49.8	23.3	34.4	48.5
	High	25.0	27.8	18.2	19.0
Region	North East	25.2	23.3	12.1	18.6
	North Central	30.6	0.0	34.3	27.4
	South	26.7	76.7	33.6	31.5
	West	17.5	0.0	20.0	22.5
Father's Occupation	Professional, Managerial, Technical	38.0	59.6	27.0	29.1
	Clerical, Sales	8.7	0.0	9.5	8.0
	Service	50.6	40.4	57.3	57.3
	Military	2.7	0.0	6.3	5.6
Parents' Income	< 9 Thousand	37.3	56.8	56.5	46.9
	9-13.5 Thousand	31.8	15.3	26.6	28.3
	13.5-18 Thousand	16.2	27.8	11.2	13.4
	18 Thousand +	14.7	0.0	5.7	11.4
High School Activities	Athletics				
	Yes	44.4	100.0	60.1	55.3
	No	55.6	0.0	39.9	44.7
	Cheerleading, etc				
	Yes	17.4	26.8	6.9	11.5
	No	82.6	73.2	93.1	88.5
	Debating, Music, Drama				
	Yes	32.8	100.0	26.6	29.0
	No	67.2	0.0	73.4	71.0
	Hobby Clubs				
	Yes	18.8	0.0	24.2	23.4
	No	81.2	100.0	75.7	76.6
	Honorary Clubs				
	Yes	14.7	19.3	3.3	5.7
	No	85.3	80.7	96.8	94.3
	Yearbook, Newspaper				
	Yes	20.4	19.1	14.4	19.5
	No	79.6	80.9	85.6	80.5
	Subject Matter Clubs				
	Yes	25.8	19.1	16.0	19.1
	No	74.2	80.9	84.0	80.9
	Student Government				
	Yes	19.6	63.4	18.9	17.4
	No	80.4	36.6	81.1	82.6
	Vocational Education				
	Yes	23.0	0.0	25.4	22.0
	No	77.0	100.0	74.6	78.0

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	In & Out	2 Yrs. or Less	More Than 2 Yrs.
Important Goals in Life	Success				
	Very Important	77.0	100.0	76.1	84.1
	Somewhat Important	21.4	0.0	23.9	15.9
	Not Important	1.6	0.0	0.0	0.0
	Good Marriage				
	Very Important	84.8	100.0	82.6	94.0
	Somewhat Important	10.9	0.0	11.7	3.8
	Not Important	4.4	0.0	5.8	2.2
	Money				
	Very Important	13.1	0.0	24.0	17.4
	Somewhat Important	59.6	100.0	59.4	61.7
	Not Important	27.2	0.0	16.7	20.9
	Friends				
	Very Important	75.3	100.0	76.0	81.8
	Somewhat Important	22.9	0.0	23.2	17.7
	Not Important	1.8	0.0	0.9	0.5
	Steady Work				
	Very Important	66.6	41.0	80.9	77.4
	Somewhat Important	28.4	59.0	17.3	20.8
	Not Important	5.0	0.0	1.7	1.8
	Community Leader				
	Very Important	6.1	0.0	6.5	16.8
	Somewhat Important	39.2	59.0	57.1	37.5
	Not Important	54.8	41.0	36.4	45.7
	Better Opportunities for Children				
	Very Important	59.2	59.0	74.6	77.1
	Somewhat Important	32.4	0.0	22.6	14.4
	Not Important	8.5	41.0	2.8	8.5
	Living Close to Relatives				
	Very Important	10.0	41.0	5.8	9.6
	Somewhat Important	48.6	59.0	46.6	42.1
	Not Important	41.4	0.0	47.7	48.2
	Getting Away from this Area				
	Very Important	7.5	0.0	20.8	14.8
	Somewhat Important	22.8	0.0	25.3	20.4
	Not Important	69.7	100.0	54.0	64.7
	Correcting Social Injustices				
	Very Important	15.5	41.0	26.2	27.8
	Somewhat Important	58.8	59.0	53.5	45.8
	Not Important	25.8	0.0	20.4	26.4
	Leisure Time				
	Very Important	57.9	59.0	62.4	53.4
	Somewhat Important	40.0	41.0	37.0	39.4
	Not Important	2.0	0.0	0.6	7.2
	Good Education				
	Very Important	57.1	100.0	72.4	69.9
	Somewhat Important	38.4	0.0	24.5	30.1
	Not Important	4.5	0.0	3.1	0.0
Important Factors in Selecting a Job or Career	Money				
	Very Important	21.7	47.2	23.0	34.8
	Somewhat Important	64.4	52.8	69.5	51.1
	Not Important	13.9	0.0	7.4	14.1

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	In & Out	2 Yrs. or Less	More Than 2 Yrs.
Important Factors in Selecting a Job or Career (con't)	Opportunity for Creativity				
	Very Important	38.8	66.4	36.0	33.8
	Somewhat Important	47.8	33.6	44.7	54.7
	Not Important	13.4	0.0	19.3	11.5
	Useful in Society				
	Very Important	53.2	58.0	39.8	50.3
	Somewhat Important	40.2	27.9	47.8	40.2
	Not Important	6.6	14.2	12.5	9.6
	Avoid High Pressure				
	Very Important	30.9	0.0	35.4	23.5
	Somewhat Important	47.3	51.1	39.9	49.2
	Not Important	21.8	48.9	24.8	27.3
	Working in World of Ideas				
	Very Important	34.4	51.1	31.9	30.7
	Somewhat Important	50.5	15.4	43.1	57.1
	Not Important	15.1	33.6	25.0	12.1
	Freedom from Supervision				
	Very Important	23.1	42.0	30.6	19.7
	Somewhat Important	47.9	38.6	44.3	54.5
	Not Important	29.0	19.3	25.1	25.8
	Opportunity for Steady Progress				
	Very Important	33.9	23.2	27.6	37.0
	Somewhat Important	52.3	47.2	58.1	43.6
	Not Important	13.8	29.5	14.2	19.4
	Chance to be a Leader				
	Very Important	15.5	27.9	26.5	26.7
	Somewhat Important	41.1	58.0	37.5	32.4
	Not Important	43.4	14.2	36.0	40.9
	Working with People				
	Very Important	48.8	52.8	35.8	51.0
	Somewhat Important	36.6	47.2	41.2	31.0
	Not Important	14.6	0.0	23.0	18.0
	Position Looked Up To				
	Very Important	24.7	51.1	31.9	37.1
	Somewhat Important	48.0	19.3	45.6	44.9
	Not Important	27.3	29.5	22.6	18.0
Important Factors in Selecting Life's Work	Previous Experience				
	Very Important	39.0	0.0	41.4	32.1
	Somewhat Important	39.5	59.0	36.4	51.6
	Not Important	21.6	41.0	22.2	16.4
	Relative/Friend in Same Line				
	Very Important	7.7	0.0	8.4	9.7
	Somewhat Important	24.5	59.0	22.8	25.7
	Not Important	67.7	41.0	68.8	64.6
	Available Openings				
	Very Important	50.0	0.0	48.7	47.2
	Somewhat Important	38.8	100.0	42.5	42.4
	Not Important	11.2	0.0	8.9	10.3
	Work Matches Hobby				
	Very Important	26.9	0.0	36.7	30.6
	Somewhat Important	37.7	0.0	36.0	31.9
	Not Important	35.4	100.0	27.3	37.5

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	In & Out	2 Yrs or Less	More Than 2 Yrs
Important Factors in Selecting Life's Work (con't)	Good Income				
	Very Important	52.7	100.0	61.0	69.1
	Somewhat Important	38.9	0.0	33.0	27.1
	Not Important	8.4	0.0	5.9	3.8
	Job Security				
	Very Important	63.6	41.0	65.6	77.0
	Somewhat Important	30.1	59.0	33.8	19.1
	Not Important	6.3	0.0	0.6	3.8
	Interesting Important Work				
	Very Important	84.4	41.0	88.6	88.3
	Somewhat Important	14.1	59.0	8.4	11.7
	Not Important	1.6	0.0	3.0	0.0
	Freedom to Make Decisions				
	Very Important	57.7	0.0	63.2	69.9
	Somewhat Important	38.9	100.0	31.7	29.6
	Not Important	3.4	0.0	5.2	0.6
	Opportunity for Promotion				
	Very Important	61.5	41.0	69.0	77.8
	Somewhat Important	31.3	59.0	26.7	17.1
	Not Important	7.1	0.0	4.3	5.1
	Working with Friendly People				
	Very Important	68.1	41.0	74.1	69.5
	Somewhat Important	28.1	59.0	21.8	27.3
	Not Important	3.8	0.0	4.1	3.2
Job Satisfaction	Pay and Fringe Benefits				
	Very Satisfied	21.6	0.0	15.6	28.4
	Satisfied	52.5	0.0	58.8	38.6
	Dissatisfied	19.1	100.0	18.3	25.5
	Very Dissatisfied	6.7	0.0	7.3	7.6
	Importance and Interest of Work				
	Very Satisfied	21.0	0.0	16.0	20.8
	Satisfied	49.8	0.0	56.5	43.2
	Dissatisfied	21.3	100.0	19.2	19.5
	Very Dissatisfied	7.9	0.0	8.3	16.5
	Working Conditions				
	Very Satisfied	24.8	0.0	15.0	16.3
	Satisfied	56.5	0.0	37.2	40.6
	Dissatisfied	14.3	100.0	35.8	30.2
	Very Dissatisfied	4.4	0.0	11.9	12.9
	Opportunity for Promotion with This Employer				
	Very Satisfied	17.9	0.0	20.1	17.4
	Satisfied	43.6	0.0	44.4	52.2
	Dissatisfied	27.5	0.0	25.2	19.8
	Very Dissatisfied	11.0	100.0	10.3	10.5
	Opportunity for Advancement in This Line of Work				
	Very Satisfied	18.9	0.0	16.2	21.3
	Satisfied	44.7	0.0	48.5	44.8
	Dissatisfied	26.2	0.0	22.8	18.2
	Very Dissatisfied	10.2	100.0	12.5	15.6
	Opportunity to Use Past Training				
	Very Satisfied	17.6	0.0	8.4	21.8
	Satisfied	45.6	0.0	47.3	35.5
	Dissatisfied	24.4	0.0	25.4	27.3
	Very Dissatisfied	12.4	100.0	18.9	15.5
	Supervisor				
	Very Satisfied	31.3	0.0	15.9	17.1
	Satisfied	50.5	100.0	55.4	48.4
	Dissatisfied	12.2	0.0	11.1	16.4
	Very Dissatisfied	6.1	0.0	17.5	18.2

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	In & Out	2 Yrs or Less	More Than 2 Yrs.
Job Satisfaction (con't)	Opportunity for Development of New Skills				
	Very Satisfied	25.1	0.0	20.0	25.8
	Satisfied	44.2	0.0	39.4	40.4
	Dissatisfied	22.1	0.0	29.3	20.0
	Very Dissatisfied	8.6	100.0	10.5	13.7
	Work as a Whole				
	Very Satisfied	26.4	0.0	18.2	13.1
	Satisfied	56.4	0.0	51.2	62.7
	Dissatisfied	12.9	0.0	15.7	8.8
	Very Dissatisfied	4.3	100.0	14.9	15.4
	Respect Received from Others				
	Very Satisfied	28.7	0.0	23.1	38.4
	Satisfied	57.1	0.0	58.5	45.6
	Dissatisfied	10.4	0.0	9.8	9.6
	Very Dissatisfied	3.8	100.0	8.7	6.4
Self Appraisal	I Take a Positive Attitude Toward Myself				
	Strongly Agree	36.1	100.0	53.5	49.1
	Agree	57.4	0.0	39.9	44.1
	Disagree	5.7	0.0	6.6	6.8
	Strongly Disagree	0.8	0.0	0.0	0.0
	Good Luck is More Important Than Hard Work				
	Strongly Agree	2.2	0.0	0.5	3.4
	Agree	7.7	0.0	11.2	7.2
	Disagree	53.2	59.0	46.9	53.1
	Strongly Disagree	37.0	41.0	41.5	36.2
	I Feel I Am a Person of Worth				
	Strongly Agree	45.6	100.0	53.8	53.9
	Agree	51.0	0.0	41.7	42.7
	Disagree	2.9	0.0	4.5	3.4
	Strongly Disagree	0.5	0.0	0.0	0.0
	I Am Able to Do Things as Well as Others				
	Strongly Agree	39.1	100.0	52.0	50.9
	Agree	56.9	0.0	44.8	45.9
	Disagree	3.6	0.0	3.2	2.7
	Strongly Disagree	0.4	0.0	0.0	0.5
	Everytime I Try to Get Ahead Something Stops Me				
	Strongly Agree	4.1	41.0	5.9	9.0
	Agree	12.6	0.0	9.7	8.7
	Disagree	59.6	59.0	68.3	62.1
	Strongly Disagree	23.8	0.0	16.1	20.2
	Planning Only Makes One Unhappy, Plans Never Work Out				
	Strongly Agree	3.6	41.0	5.7	7.0
	Agree	11.1	0.0	12.2	11.7
	Disagree	52.7	59.0	49.0	48.4
	Strongly Disagree	32.6	0.0	33.0	32.9
	People Who Accept Their Condition in Life Are Happier				
	Strongly Agree	7.0	0.0	8.7	10.6
	Agree	18.7	0.0	16.5	18.7
	Disagree	48.4	100.0	43.8	44.7
	Strongly Disagree	25.8	0.0	31.0	26.1
	On the Whole I Am Satisfied with Myself				
	Strongly Agree	28.4	41.0	34.7	24.4
	Agree	59.2	0.0	55.2	64.7
	Disagree	10.8	59.0	7.0	9.9
	Strongly Disagree	1.6	0.0	3.1	1.0

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 yrs or less	more than 2 yrs.
Political Attitudes	Voting in Local Elections			
	Very Worthwhile	50.8	57.8	58.5
	Somewhat Worthwhile	39.1	29.3	32.9
	Not Worthwhile	10.1	12.9	8.6
	Writing or Talking to Representative in Government			
	Very Worthwhile	20.2	35.0	38.7
	Somewhat Worthwhile	54.8	42.8	46.2
	Not Worthwhile	25.0	22.2	15.1
	Voting When You are Pretty Sure your Party Won't Win			
	Very Worthwhile	43.2	45.3	44.1
	Somewhat Worthwhile	37.9	30.6	38.3
	Not Worthwhile	18.9	24.1	17.6
	Attending City Council or County Commission meetings			
	Very Worthwhile	15.1	21.6	26.2
	Somewhat Worthwhile	52.6	47.0	48.6
	Not Worthwhile	32.2	31.4	25.2
	Signing Petitions to Change the Way Things are in Locality, State, Nation			
	Very Worthwhile	43.0	50.4	53.7
	Somewhat Worthwhile	43.8	35.2	35.1
	Not Worthwhile	13.1	14.3	11.2
	Working to Register New Voters			
	Very Worthwhile	30.3	35.9	36.8
	Somewhat Worthwhile	46.0	42.2	44.6
	Not Worthwhile	23.7	21.9	18.6
	Becoming an Active Member of a Political Party			
	Very Worthwhile	14.8	16.8	24.6
	Somewhat Worthwhile	45.2	42.2	43.2
	Not Worthwhile	40.0	40.9	32.2
Self-Rating of Personal Traits	Trait			
	1. Inactive	2.9	3.8	1.8
	2.	3.6	6.7	6.6
	3.	5.1	7.1	6.5
	4.	11.2	7.8	7.7
	5.	17.4	15.5	15.2
	6.	24.6	18.6	22.8
	7.	22.8	18.6	23.6
	8. Energetic	12.5	21.9	15.8
	1. Not Understanding	0.7	0.	1.9
	2.	1.1	2.9	3.6
	3.	2.2	0.	2.7
	4.	3.8	4.9	8.4
	5.	9.8	12.7	10.3
	6.	18.5	19.0	17.8
	7.	33.1	30.5	20.9
	8. Understanding	30.9	30.0	34.5

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 yrs or less	more than 2 yrs.
Self-Rating of Personal Traits	1. Do Not Think Far Ahead	4.0	4.5	2.2
	2.	4.4	4.1	7.4
	3.	5.9	1.1	8.3
	4.	8.6	16.4	11.1
	5.	13.6	14.2	8.6
	6.	17.3	13.2	17.1
	7.	24.8	19.3	28.1
	8. Think Ahead	21.3	27.0	17.3
	1. Self Concerned	2.8	5.9	2.7
	2.	3.0	2.1	6.9
	3.	5.1	2.6	7.3
	4.	11.0	16.2	9.1
	5.	19.0	29.8	11.1
	6.	22.3	18.8	27.1
	7.	24.8	18.2	26.1
	8. Other Concerned	11.9	6.4	9.6
	1. Unenthusiastic	1.8	1.5	0.9
	2.	3.5	7.3	1.8
	3.	5.9	10.8	6.5
	4.	10.5	6.1	8.6
	5.	16.1	23.3	24.1
	6.	19.5	13.2	13.0
	7.	23.2	19.3	18.1
	8. Enthusiastic	19.5	18.4	27.1
	1. Impractical	0.7	0.	0.5
	2.	1.2	2.6	0.
	3.	2.3	2.9	3.6
	4.	5.0	5.8	3.0
	5.	13.4	15.0	8.8
	6.	19.2	25.8	19.0
	7.	34.5	25.0	37.8
	8. Practical	23.8	22.8	27.3
	1. Vague Thinking	1.8	1.6	5.1
	2.	2.6	1.9	3.2
	3.	3.7	8.5	2.0
	4.	6.8	12.6	9.5
	5.	15.9	13.4	12.9
	6.	24.2	19.5	18.7
	7.	31.0	24.2	32.6
	8. Clear Thinking	14.1	18.1	16.1
	1. Personally Cold	0.9	3.0	2.5
	2.	1.3	2.8	2.7
	3.	2.3	2.7	4.0
	4.	4.4	5.4	4.5
	5.	9.3	7.4	11.5
	6.	14.6	15.6	6.5
	7.	30.8	26.7	27.9
	8. Personally Warm	36.4	36.3	40.4
	1. Unambitious	1.1	4.9	1.4
	2.	1.7	1.3	0.4
	3.	3.0	0.9	1.6
	4.	6.9	5.2	5.1
	5.	14.0	14.6	17.7
	6.	21.2	14.2	18.8
	7.	27.5	33.4	24.1
	8. Ambitious	24.6	25.5	30.9

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 Yrs or Less	More Than 2 Yrs
Political Activities and Participation	Talk with friends about public problems			
	Frequently	38.0	46.9	60.2
	Sometimes	56.4	48.7	33.8
	Never	5.6	4.5	6.0
	Talk about public problems with:			
	a. Your family			
	Frequently	34.9	30.6	39.9
	Sometimes	55.9	53.7	42.9
	Never	9.2	15.7	17.2
	b. People where you work			
	Frequently	27.9	42.1	59.6
	Sometimes	53.8	52.0	30.7
	Never	18.3	5.8	9.7
	c. Community, club, or church leaders			
	Frequently	7.2	11.4	13.0
	Sometimes	31.7	35.3	34.5
	Never	61.1	53.3	52.5
	d. Elected government officials, people in politics, Democrat or Republican leaders			
	Frequently	5.3	8.2	13.5
	Sometimes	20.3	26.1	28.1
	Never	74.4	65.7	58.4
	Talked to people in order to influence their vote			
	Frequently	7.2	5.6	14.5
	Sometimes	32.8	26.5	34.7
	Never	60.0	67.9	50.8
	Given any money or bought tickets in election support			
	Frequently	2.7	1.3	6.6
	Sometimes	17.2	16.9	25.1
	Never	80.1	81.8	68.3
	Gone to political meetings, rallies, barbecues, fish fries in connection with an election			
	Frequently	3.7	1.9	9.6
	Sometimes	23.6	26.1	30.9
	Never	72.7	72.0	59.6
	Done any work to help a candidate in his campaign			
	Frequently	3.7	2.9	9.9
	Sometimes	19.8	18.1	24.6
	Never	76.5	79.0	65.6
	Held an office in a political party or been elected to a government job			
	Frequently	0.5	0	2.3
	Sometimes	1.4	2.3	4.9
	Never	98.0	97.7	92.8
Voluntary Group Participation	Youth organizations, Little League, scouting, etc.			
	Active Participant	6.7	7.6	9.6
	Member Only	2.1	3.5	3.2
	Not at all	91.2	88.9	87.1

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 Yrs or Less	More Than 2 Yrs
Voluntary Group Participation (con't)	Union, farm, trade, or professional association			
	Active Participant	4.6	0	3.7
	Member only	10.7	4.6	3.2
	Not at all	84.8	95.4	93.1
	Political clubs or organizations			
	Active Participant	3.3	0.7	1.8
	Member only	4.7	1.3	4.0
	Not at all	92.0	98.0	94.1
	Church groups or church-related activities			
	Active Participant	15.8	16.4	15.8
	Member only	15.5	7.9	16.6
	Not at all	68.7	75.7	67.6
	Community centers, neighborhood improvement, or social-action groups			
	Active Participant	5.2	5.5	8.9
	Member only	3.7	4.5	4.3
	Not at all	91.1	90.0	86.8
	Organized volunteer work, such as in a hospital			
	Active Participant	4.9	0.5	5.2
	Member only	1.4	1.9	3.7
	Not at all	93.7	97.6	91.2
	A social, hobby, garden or card-playing group			
	Active Participant	17.6	14.8	20.0
	Member only	4.5	1.9	6.8
	Not at all	77.9	83.4	73.2
	Sport teams or sport clubs			
	Active Participant	24.7	28.7	34.5
	Member only	4.2	5.8	6.0
	Not at all	71.2	65.5	59.6
	A literary, art, discussion, music, or study group			
	Active Participant	8.8	7.2	4.3
	Member only	2.8	2.0	3.6
	Not at all	88.4	90.8	92.1
	Educational organizations, PTA, or academic group			
	Active Participant	2.6	0	2.0
	Member only	1.8	1.1	0.0
	Not at all	95.7	98.9	98.0
	Service organizations, Rotary, Jr. Chamber of Commerce, Veterans, etc.			
	Active Participant	1.7	5.4	1.5
	Member Only	1.1	6.4	3.9
	Not at all	97.2	88.2	94.6
	Student government, newspaper, journal or Annual staff			
	Active Participant	4.5	1.6	3.7
	Member only	1.6	0.7	0.9
	Not at all	93.9	97.8	95.4
	Another voluntary group			
	Active Participant	10.1	6.9	10.1
	Member only	2.7	0.7	1.9
	Not at all	87.2	92.4	88.0

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 yrs. or less	More than 2 yrs.
Attitude toward the "Quality of Life"	Having Enough Money			
	Exactly	33.3	31.5	29.7
	Extremely Well	22.7	20.4	25.7
	Very Well	23.3	25.6	24.0
	Fairly Well	16.7	19.4	16.5
	Not Very Well	3.9	3.1	4.1
	Having Healthful Living Patterns			
	Exactly	34.8	37.0	37.6
	Extremely Well	28.4	21.7	24.0
	Very Well	22.9	25.7	20.5
	Fairly Well	11.6	15.1	13.1
	Not Very Well	2.2	0.5	4.9
	Protection of Air, Water, Natural Resources			
	Exactly	39.1	51.8	42.0
	Extremely Well	29.3	24.6	31.2
	Very Well	19.7	16.1	14.0
	Fairly Well	9.9	4.8	9.1
	Not Very Well	2.0	2.6	3.7
	Having Leisure Time and Money			
	Exactly	29.7	42.6	29.7
	Extremely Well	27.7	17.1	20.0
	Very Well	24.0	24.1	21.4
	Fairly Well	14.8	14.4	20.2
	Not Very Well	3.9	1.8	8.7
	Feeling Free			
	Exactly	20.6	36.5	30.1
	Extremely Well	19.0	18.9	16.4
	Very Well	19.2	15.5	12.4
	Fairly Well	21.2	13.5	25.1
	Not Very Well	20.0	15.6	16.0
	Feeling Safe From Violence			
	Exactly	35.0	40.7	32.9
	Extremely Well	28.0	28.2	19.6
	Very Well	20.6	17.9	22.8
	Fairly Well	11.8	10.4	16.5
	Not Very Well	4.5	2.9	8.2
	Having a Chance to Choose Life's Work			
	Exactly	50.4	60.2	53.5
	Extremely Well	28.1	20.9	23.4
	Very Well	13.6	10.2	11.2
	Fairly Well	5.6	4.8	6.7
	Not Very Well	2.2	3.9	5.3
	Loving and Being Loved			
	Exactly	59.6	66.6	62.0
	Extremely Well	25.6	22.1	19.2
	Very Well	10.3	7.1	11.8
	Fairly Well	3.4	3.5	6.1
	Not Very Well	1.0	0.8	0.9

Table B.2

NLS PERCENTAGE DISTRIBUTIONS BY CHARACTERISTIC: ALL GROUPS (Con't)

Characteristic	Responses	Never	2 yrs. or less	More than 2 yrs.
Attitude toward the "Quality of Life"	Living a Life of Honest and Integrity			
	Exactly	53.0	62.1	56.8
	Extremely Well	29.5	22.0	24.2
	Very Well	12.8	12.2	12.6
	Fairly Well	3.9	3.2	4.3
	Not Very Well	0.8	0.5	2.0
	Freedom to Read, Discuss Important Questions			
	Exactly	40.0	57.3	53.3
	Extremely Well	29.6	18.9	20.7
	Very Well	19.5	16.5	15.0
	Fairly Well	8.8	5.3	7.2
	Not Very Well	2.2	2.0	3.8
	Having a Chance for a Good Education			
	Exactly	39.5	48.2	58.6
	Extremely Well	28.8	24.0	19.0
	Very Well	19.1	19.1	17.7
	Fairly Well	9.9	8.1	3.7
	Not Very Well	2.8	0.6	0.9

APPENDIX C

National Longitudinal Study Questions Used in This Evaluation

The following NLS questions were used in this analysis of Army representativeness. A complete set of questionnaire items may be obtained through The National Center for Educational Statistics, Education Division, Department of Health, Education, and Welfare, Washington, D.C.

A. BASE-YEAR QUESTIONNAIRE

10. Have you participated in any of the following types of activities, either in or out of school this year?

(Circle one number on each line.)

	Have not participated	Have participated actively	Have participated as a leader or officer
Athletic teams, intramurals, letterman's club, sports club	1	2	3
Cheerleaders, pep club, majorettes	1	2	3
Debating, drama, band, chorus	1	2	3
Hobby clubs such as photography, model building, hot rod, electronics, crafts	1	2	3
Honorary clubs such as Beta Club or National Honor Society	1	2	3
School newspaper, magazine, yearbook, annual	1	2	3
School subject matter clubs such as science, history, language, business, art	1	2	3
Student council, student government, political club	1	2	3
Vocational education clubs such as Future Homemakers, Teachers, Farmers of America, DECA, OEA, FBLA, or VICA	1	2	3

20. How important is each of the following to you in your life?

(Circle one number on each line.)

	Not important	Somewhat important	Very important
Being successful in my line of work	1	2	3
Finding the right person to marry and having a happy family life	1	2	3
Having lots of money	1	2	3
Having strong friendships	1	2	3
Being able to find steady work	1	2	3
Being a leader in my community	1	2	3
Being able to give my children better opportunities than I've had	1	2	3
Living close to parents and relatives	1	2	3
Getting away from this area of the country	1	2	3
Working to correct social and economic inequalities	1	2	3

21. How do you feel about each of the following statements?

(Circle one number on each line.)

	Agree strongly	Agree	Disagree	Disagree strongly	No opinion
I take a positive attitude toward myself	1	2	3	4	5
Good luck is more important than hard work for success	1	2	3	4	5
I feel I am a person of worth, on an equal plane with others	1	2	3	4	5
I am able to do things as well as most other people	1	2	3	4	5
Every time I try to get ahead, something or somebody stops me	1	2	3	4	5
Planning only makes a person unhappy since plans hardly ever work out anyway	1	2	3	4	5
People who accept their condition in life are happier than those who try to change things	1	2	3	4	5
On the whole, I'm satisfied with myself	1	2	3	4	5

25. In the column under YOU, circle the one number that goes with the best description of the kind of work you would like to do. Under FATHER, circle the one number that best describes the work done by your father (or male guardian). Under MOTHER, circle the one number that best describes the work done by your mother (or female guardian). The exact job may not be listed but circle the one that comes closest. If either of your parents is out of work, disabled, retired, or deceased, mark the kind of work that he or she used to do.

(Circle one number in each column.)

	You	Father	Mother
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	01	01
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	02	02
FARMER, FARM MANAGER	03	03	03
HOMEMAKER OR HOUSEWIFE	04	04	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	05	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	06	06
MILITARY such as career officer, enlisted man or woman in the armed forces	07	07	07
OPERATIVE such as meat cutter; assembler; machine operator; welder; taxicab, bus, or truck driver; gas station attendant	08	08	08
PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress	09	09	09
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	10	10	10
PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman	11	11	11
SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker	12	12	12
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	13	13	13
TECHNICAL such as draftsman, medical or dental technician, computer programmer	14	14	14

24. How important is each of the following to you in selecting a job or career?

(Circle one number on each line.)

	Not important	Somewhat important	Very important
Making a lot of money	1	2	3
Opportunities to be original and creative	1	2	3
Opportunities to be helpful to others or useful to society	1	2	3
Avoiding a high-pressure job that takes too much out of you	1	2	3
Living and working in the world of ideas	1	2	3
Freedom from supervision in my work	1	2	3
Opportunities for moderate but steady progress rather than the chance of extreme success or failure	1	2	3
The chance to be a leader	1	2	3
Opportunities to work with people rather than things	1	2	3
Having a position that is looked up to by others	1	2	3

26. How important was each of the following factors in determining the kind of work you plan to be doing for most of your life?

(Circle one number on each line.)

	Not important	Somewhat important	Very important
Previous work experience in the area	1	2	3
Relative or friend in the same line of work	1	2	3
Job openings available in the occupation	1	2	3
Work matches a hobby interest of mine	1	2	3
Good income to start or within a few years	1	2	3
Job security and permanence	1	2	3
Work that seems important and interesting to me	1	2	3
Freedom to make my own decisions	1	2	3
Opportunity for promotion and advancement in the long run	1	2	3
Meeting and working with sociable, friendly people	1	2	3

29. To answer this question, circle one number for the highest level of education you would like to attain, and also circle one for the highest level you plan to attain.

(Circle one number in each column.)

	Would like to attain	Plan to attain
Less than high school graduation	1	1
Graduate from high school but not go beyond that	2	2
Graduate from high school and then go to a vocational, technical, business, or trade school	3	3
Go to a junior college	4	4
Go to a four-year college or university	5	5
Go to a graduate or professional school *after college*	6	6

44. Which service will you most likely enter (including Reserve or National Guard within appropriate service)?

(Circle one.)

Army	1
Air Force	2
Navy	3
Marine Corps	4
Coast Guard	5
I don't know	6

84. **How do you describe yourself?**

	(Circle one.)
American Indian	1
Black or Afro-American or Negro	2
Mexican-American or Chicano	3
Puerto Rican	4
Other Latin-American origin	5
Oriental or Asian-American	6
White or Caucasian	7
Other	8

90. What was the highest educational level each of the following persons completed? If you are not sure, please give your best guess.

(Circle one number in each column.)

	Father or male guardian	Mother or female guardian	Oldest brother or sister
Doesn't apply	1	1	1
Did not complete high (secondary) school	2	2	2
Finished high school or equivalent	3	3	3
Adult education program	4	4	4
Business or trade school	5	5	5
Some college	6	6	6
Finished college (four years)	7	7	7
Attended graduate or professional school (for example, law or medical school), but did not attain a graduate or professional degree	8	8	8
Obtained a graduate or professional degree (for example, M.A., Ph.D., or M.D.)	9	9	9

93. What is the approximate income before taxes of your parents (or guardian)? Include taxable and non-taxable income from all sources.

	(Circle one.)
Less than $3,000 a year (about $60 a week or less)	01
Between $3,000 and $5,999 a year (from $60 to $119 a week)	02
Between $6,000 and $7,499 a year (from $120 to $149 a week)	03
Between $7,500 and $8,999 a year (from $150 to $179 a week)	04
Between $9,000 and $10,499 a year (from $180 to $209 a week)	05
Between $10,500 and $11,999 a year (from $210 to $239 a week)	06
Between $12,000 and $13,499 a year (from $240 to $269 a week)	07
Between $13,500 and $14,999 a year (from $270 to $299 a week)	08
Between $15,000 and $18,000 a year (from $300 to $359 a week)	09
Over $18,000 a year (about $360 a week or more)	10

31. What is the one thing that most likely will take the largest share of your time in the year after you leave high school?

(Circle only one number and then follow the directions beside that number.)

	(Circle one.)	**Directions**
Working full-time	01	→ *Go to question 32 and complete Section D.*
Entering an apprenticeship or on-the-job training program	02	→ *Skip to page 15 and complete Section E.*
Going into regular military service (or service academy)	03	→ *Skip to page 17 and complete Section F.*
Being a full-time homemaker	04	→ *Skip to page 20 and complete Section G.*
Taking vocational or technical courses at a trade or business school full-time or part time	05	→ *Skip to page 22 and complete Section H.*
Taking *academic courses* at a junior or community college full-time or part-time	06	→ *Skip to page 25 and complete Section I.*
Taking *technical or vocational subjects* at a junior or community college full-time or part-time	07	
Attending a four-year college or university full-time or part-time	08	
Working part-time, but not attending school or college	09	→ *Skip to page 29 and complete Section J.*
Other (travel, take a break, no plans)	10	→ *Skip to page 31 and complete Section K.*

B FIRST FOLLOW-UP QUESTIONNAIRE

1. What are you doing now?

(Circle one number on each line.)

	Applies to me	**Does not apply to me**
Working for pay at a full-time or part-time job	1	2
Taking vocational or technical courses at any kind of school or college (for example, vocational, trade, business, or other career training school)	1	2
Taking academic courses at a two- or four-year college	1	2
On active duty in the Armed Forces (or service academy)	1	2
Homemaker	1	2
Temporary lay-off from work, looking for work, or waiting to report to work	1	2
Other (please describe:____________________________)	1	2

15. How do you feel about each of the following statements?

(Circle one number on each line.)

	Agree Strongly	Agree	Disagree	Disagree Strongly	No Opinion
I take a positive attitude toward myself	1	2	3	4	5
Good luck is more important than hard work for success	1	2	3	4	5
I feel I am a person of worth, on an equal plane with others	1	2	3	4	5
I am able to do things as well as most other people	1	2	3	4	5
Every time I try to get ahead, something or somebody stops me	1	2	3	4	5
Planning only makes a person unhappy since plans hardly ever work out anyway	1	2	3	4	5
People who accept their condition in life are happier than those who try to change things	1	2	3	4	5
On the whole, I'm satisfied with myself	1	2	3	4	5

In this section we would like to obtain information about the jobs you have held in October 1973 and October 1972, including full-time jobs, part-time jobs, apprenticeships, and on-the-job training (but do not include military service).

51. How satisfied were you with the following aspects of this job?

(Circle one number on each line.)

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
Pay and fringe benefits	1	2	3	4
Importance and challenge	1	2	3	4
Working conditions	1	2	3	4
Opportunity for promotion and advancement with this employer	1	2	3	4
Opportunity for promotion and advancement in this line of work	1	2	3	4
Security and permanence	1	2	3	4
Opportunity for developing new skills	1	2	3	4
Job as a whole	1	2	3	4

73. How satisfied are (were) you with the following aspects of your work in the Armed Forces?

(Circle one number on each line.)

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
Pay and fringe benefits	1	2	3	4
Importance and interest of work	1	2	3	4
Working conditions	1	2	3	4
Opportunity for promotion and advancement in the Armed Forces	1	2	3	4
Opportunity for promotion and advancement in my specialty	1	2	3	4
Security and permanence	1	2	3	4
Opportunity for developing new skills	1	2	3	4
Work as a whole	1	2	3	4

75. How long do you expect to be on active duty in the Armed Forces?

	(Circle one.)
For a two-year tour of duty only	1
For a three- or four-year tour of duty	2
For more than one enlistment, but less than a full career	3
For a full career (20 years minimum)	4
Have not decided	5

76. What do you plan to do when you get out of the Armed Forces?

(Circle one number on each line.)

	Applies to me	**Does not apply to me**
Full- or part-time work	1	2
College, either full-time or part-time	1	2
Technical, vocational, or business or career training school, either full-time or part-time	1	2
Registered apprenticeship or on-the-job training program	1	2
Retire	1	2
Undecided	1	2
Other (please specify: ______________________________)	1	2

C. SECOND FOLLOW-UP QUESTIONNAIRE

1. What were you doing the first week of October 1974?

	(Circle as many as apply.)
Working for pay at a full-time or part-time job	1
Taking academic courses at a two- or four-year college	2
Taking vocational or technical courses at any kind of school or college (for example, vocational, trade, business, or other career training school)	3
On active duty in the Armed Forces (or service academy)	4
Homemaker	5
Temporary lay-off from work, looking for work, or waiting to report to work	6
Other (describe: ______________________________)	7

121. Since October 1973, have you served in the Armed Forces, or a Reserve or National Guard Unit?

	(Circle one.)	
No	1	*SKIP TO SECTION F, next page*
Yes, National Guard or Reserves but not active duty	2	
Yes, active duty	3	*GO TO Q. 122*

122. In which branch of the Armed Forces did you serve? (Write in): ______________________________

123. When did you begin active duty? ______________ (month) ______________ (year)

129. How long do you expect to be on active duty in the Armed Forces?

	(Circle one.)
For a two-year tour of duty only	1
For a three- or four-year tour of duty	2
For more than one enlistment, but less than a full career	3
For a full career (20 years minimum)	4
Have not decided	5

8. How do you describe yourself?

	(Circle one.)
American Indian	1
Black or Afro-American or Negro	2
Mexican-American or Chicano	3
Puerto Rican	4
Other Latin-American origin	5
Oriental or Asian-American	6
White or Caucasian	7
Other	8

In this section, we would like to find out about the jobs you may have held from October 1973 through October 1974. Include full-time jobs, part-time jobs, apprenticeships, on-the-job-training, military service and so on.

79. How satisfied were you with the following aspects of this job?

(Circle one number on each line.)

		Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
a.	Pay and fringe benefits	1	2	3	4
b.	Importance and challenge	1	2	3	4
c.	Working conditions	1	2	3	4
d.	Opportunity for promotion and advancement with this employer	1	2	3	4
e.	Opportunity for promotion and advancement in this line of work	1	2	3	4
f.	Opportunity to use past training and education	1	2	3	4
g.	Security and permanence	1	2	3	4
h.	Supervisor(s)	1	2	3	4
i.	Opportunity for developing new skills	1	2	3	4
j.	Job as a whole	1	2	3	4
k.	The pride and respect I receive from my family and friends by being in this line of work	1	2	3	4

141. How important is each of the following factors in determining the kind of work you plan to be doing for most of your life?

(Circle one number on each line.)

		Very Important	Somewhat Important	Not Important
a.	Previous work experience in the area	1	2	3
b.	Relative or friend in the same line of work	1	2	3
c.	Job openings available in the occupation	1	2	3
d.	Work matches a hobby interest of mine	1	2	3
e.	Good income to start or within a few years	1	2	3
f.	Job security and permanence	1	2	3
g.	Work that seems important and interesting to me	1	2	3
h.	Freedom to make my own decisions	1	2	3
i.	Opportunity for promotion and advancement in the long run	1	2	3
j.	Meeting and working with sociable, friendly people	1	2	3

131. To what extent have you voluntarily participated in the following groups during the year October 1973 through October 1974? (By voluntarily, we mean you are not an employee of the group; by active participant, we mean that you attend the meetings or events; by member only, we mean that you are on a mailing or telephone list so that you are kept informed of meetings and events.)

(Circle one number on each line.)

		Active Participant	Member Only	Not At All
a.	Youth organizations—such as Little League coach, scouting, etc.	1	2	3
b.	Union, farm, trade or professional association	1	2	3
c.	Political clubs or organizations	1	2	3
d.	Church or church-related activities (not counting worship services)	1	2	3
e.	Community centers, neighborhood improvement, or social-action associations or groups	1	2	3
f.	Organized volunteer work—such as in a hospital	1	2	3
g.	A social, hobby, garden, or card playing group	1	2	3
h.	Sport teams or sport clubs	1	2	3
i.	A literary, art, discussion, music, or study group	1	2	3
j.	Educational organizations—such as PTA or an academic group	1	2	3
k.	Service organizations—such as Rotary, Junior Chamber of Commerce, Veterans, etc.	1	2	3
l.	A student government, newspaper, journal, or annual staff	1	2	3
m.	Another voluntary group in which I participate	1	2	3

132. How do you feel about each of the following statements?

(Circle one number on each line.)

		Agree Strongly	Agree	Disagree	Disagree Strongly	No Opinion
a.	I take a positive attitude toward myself	1	2	3	4	5
b.	Good luck is more important than hard work for success	1	2	3	4	5
c.	I feel I am a person of worth, on an equal plane with others	1	2	3	4	5
d.	I am able to do things as well as most other people	1	2	3	4	5
e.	Every time I try to get ahead, something or somebody stops me	1	2	3	4	5
f.	Planning only makes a person unhappy since plans hardly ever work out anyway	1	2	3	4	5
g.	People who accept their condition in life are happier than those who try to change things	1	2	3	4	5
h.	On the whole, I'm satisfied with myself	1	2	3	4	5

134. Generally speaking, how worthwhile are the following activities?

(Circle one number on each line.)

		Very Worthwhile	Somewhat Worthwhile	Not Worthwhile
a.	Voting in local elections	1	2	3
b.	Writing or talking to your representatives in the government	1	2	3
c.	Voting when you are pretty sure your party won't win	1	2	3
d.	Attending city council or county commission meetings	1	2	3
e.	Signing petitions to change the way things are in your locality, state, or the whole nation	1	2	3
f.	Working to register new voters	1	2	3
g.	Becoming an active member of a political party	1	2	3

135. People often use the term "quality of life" to mean different things. How well does each of the following statements express what "quality of life" means to YOU?

(Circle one number on each line.)

	Exactly	Extremely Well	Very Well	Fairly Well	Not Very Well
a. Having enough money—to buy sufficient food, to dress as needed, and to have adequate shelter	1	2	3	4	5
b. Having healthful living patterns—eating a balanced diet, getting plenty of exercise and regular sleep	1	2	3	4	5
c. Living where the air is clean, the water is fresh, and where people really try to protect their natural resources	1	2	3	4	5
d. Having time and money for some of the "extras" of life—vacations, hobby time and equipment, entertainment opportunities	1	2	3	4	5
e. Feeling free—not tied down by many personal or work responsibilities	1	2	3	4	5
f. Feeling personally safe from violence, injustice, or fraud	1	2	3	4	5
g. Having a chance to do the kind of work I really want to do in life	1	2	3	4	5
h. Having sustained personal relationships—loving and being loved	1	2	3	4	5
i. Living a life of honesty and moral integrity—doing what I think is right to do	1	2	3	4	5
j. Having the opportunity to read, think and discuss important questions about life values, etc.	1	2	3	4	5
k. Having the chance to get a good education	1	2	3	4	5

136. The following questions ask about your political pariticipation.

(Circle one number on each line.)

	Frequently	Sometimes	Never
a. When you talk with your friends, do you ever talk about public problems—that is, what's happening in the country or in your community?	1	2	3
b. Do you ever talk about public problems with any of the following people?			
Your family	1	2	3
People where you work	1	2	3
Community leaders, such as club or church leaders	1	2	3
c. Do you ever talk about public problems with elected government officials or people in politics, such as Democratic or Republican leaders?	1	2	3
d. Have you ever talked to people to try to get them to vote for or against any candidate?	1	2	3
e. Have you ever given any money or bought tickets to help someone who was trying to win an election?	1	2	3
f. Have you ever gone to any political meetings, rallies, barbecues, fish fries, or things like that in connection with an election?	1	2	3
g. Have you ever done any work to help a candidate in his campaign?	1	2	3
h. Have you ever held an office in a political party or been elected to a government job?	1	2	3

148. How important is each of the following to you in your life?

(Circle one number on each line.)

	Very Important	Somewhat Important	Not Important
a. Being successful in my line of work	1	2	3
b. Finding the right person to marry and having a happy family life	1	2	3
c. Having lots of money	1	2	3
d. Having strong friendships	1	2	3
e. Being able to find steady work	1	2	3
f. Being a leader in my community	1	2	3
g. Being able to give my children better opportunities than I've had	1	2	3
h. Living close to parents and relatives	1	2	3
i. Getting away from this area of the country	1	2	3
j. Working to correct social and economic inequalities	1	2	3
k. Having leisure time to enjoy my own interests	1	2	3
l. Having a good education	1	2	3

153. The following items give you a chance to rate yourself on the degree to which you possess one of each pair of traits. For ratings on this scale, 1-4 refers to the trait on the far left side while 5-8 refers to the trait on the far right side. Let's take an example to show what you are saying when you circle a number from 1-8.

Cheerful Sad

[✓ 1] 2 3 4 5 6 7 8

CIRCLE the ONE NUMBER that comes closest to saying how you would rate yourself.

[✓ 1] ... cheerful just about all the time.
2 ... cheerful most of the time.
3 ... often cheerful.
4 ... more often cheerful than sad.
5 ... more often sad than cheerful.
6 ... often sad.
7 ... sad most of the time.
8 ... sad just about all the time.

(Circle one number on each line.)

a. Inactive I lack drive, energy, vitality; I tend to be passive, and am without strong interests.	1	2	3	4	5	6	7	8	**Energetic** I have unlimited energy, high drive, vitality; I need to be constantly active and interested in many activities.
b. Understanding of Others I am sympathetic about the feelings and problems of other persons; people come to me for advice when in trouble.	1	2	3	4	5	6	7	8	**Not Understanding of Others** I am unaware of and uninterested in the feelings and problems of others; other persons do not come to me for advice.
c. Do Not Think Far Ahead I act impulsively without thinking of the consequences and frequently I am caught short because I have not foreseen the outcomes.	1	2	3	4	5	6	7	8	**Think Ahead** I consider future possibilities and outcomes of my decisions before acting.
d. Self-Concerned I talk a lot about myself, think more about myself and what I want than about other people. I frequently am unaware of the rights and needs of other people.	1	2	3	4	5	6	7	8	**Other-Concerned** I think of others and what they want; try to consider others' points of view; can compromise or adjust to demands of others.
e. Enthusiastic I am interested and excited about new events; get involved in activities easily and have strong interests.	1	2	3	4	5	6	7	8	**Unenthusiastic** I do not get deeply involved or excited; I am mild; not much excites me.
f. Practical I have good judgment and common sense; I make practical and appropriate comments and decisions.	1	2	3	4	5	6	7	8	**Impractical** I make impractical, inappropriate suggestions that don't consider all aspects of a problem.
g. Vague Thinking My thinking is vague, illogical, indefinite.	1	2	3	4	5	6	7	8	**Clear Thinking** My thinking is clear, precise, and logical.
h. Personally Warm I tend to be sincere, friendly, emotionally responsive, sympathetic to others, affectionate, and enjoy other people.	1	2	3	4	5	6	7	8	**Personally Cold** I tend to be distant, aloof, austere, and undemonstrative with others; I do not like to express affection or feelings and am more comfortable in impersonal situations.
i. Ambitious I set high goals for myself and am dissatisfied when I do not accomplish all of them. When I finish one thing, I begin another right away.	1	2	3	4	5	6	7	8	**Unambitious** I am unambitious and am easily satisifed with what I can accomplish.